# CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, November 15, 1906.

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## CONSTRUCTION NEWS.

### PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S.) and Bidding Sheets (B. S.) may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

| Bids close. | Work. | Place. | On file. | See issue |
|---|---|---|---|---|
| Nov. | | | | |
| *15 | Dam, excavation | N. Yakima, Wash | P., S. & B. S. | 9-27 |
| *15 | Canal, dam, tunnels | N. Yakima, Wash | P., S. & B. S. | 9-27 |
| *15 | Steel bars, etc. | Lascruces, N. Mex | S. & B. S. | 10-18 |
| *20 | Bridge | Winnipeg. Man | P., S. & B. S. | 10- 4 |
| 24 | Retaining wall | Philadelphia, Pa | S. | 11-15 |
| Dec. | | | | |
| 1 | Elevator | Charleston, S. C | S. | 11-15 |
| 11 | Suction dredges | Panama | S. & B. S. | 11- 8 |
| *15 | Ditches | Glendive, Mont | P., S. & B. S. | 11- 1 |
| *15 | Structures | Glendive, Mont | P. & B. S. | 11-15 |
| *20 | Sluice gates | Cody, Wyo | P. & B. S. | 11-15 |

*Work advertised in Engineering News.

NOTE.—We are desirous of securing specifications and bidding sheets (and plans when not too bulky) of pending work for file in our New York office for the benefit of contractors or others who may be interested in the work. If more sets than one are sent us we shall be pleased to distribute these to contractors who ask for them. When the work is advertised in Engineering News a note that the plans are filed with us will be added to the advertisement without cost.

### LIST OF CONTRACTS PENDING.

#### LIGHT, HEAT AND POWER PLANTS.

| Bids close. | Work. Place. | See issue |
|---|---|---|
| Nov. 13. | Electric supplies, Washington, D. C. | Oct. 25 |
| Nov. 20. | Electrical supplies, Washington, D. C. | Nov. 8 |
| Nov. 22. | Lighting, Minneapolis, Minn | Nov. 8 |
| Nov. 23. | Light plant, Green Bay, Wis | Nov 1 |
| Nov. 27. | Power-house, Norfolk, Va | Nov. 1 |
| Nov. 29. | Power, Peterboro, Ont | Nov. 1 |
| Nov. 29. | Water power, Ottawa, Ont | Nov. 15 |
| Dec. 17. | Power-house, Sault Ste. Marie, Mich | Nov. 8 |

#### BRIDGES.

Nov. 19. Bridge, Kansas City, Kan..............Nov. 8
Nov. 19. Bridges, Independence, Mo..............Nov. 8
Nov. 20. Bridge, Winnipeg, Man..............Oct. 4
Advertised, Eng. News, Oct. 4 to 25.
Nov. 21. Bridge, Perth Amboy, N. J..............Nov. 1
Nov. 24. Bridges, Gainesville, Ga..............Nov. 8
Nov. 26. Bridge, Sampson, Mo..............Nov. 15
Nov. 27. Bridge, Philadelphia, Pa..............Nov. 15
Advertised, Eng. News, Nov. 15 and 22.
Nov. 29. Bridge, Gilroy, Cal..............Oct. 25
Nov. 30. Bridge, Circleville, Ohio..............Nov. 15
Dec. 3. Bridge, De Funiak Springs, Fla..............Nov. 8
Dec. 15. Bridge, Carthage, Tenn..............Nov. 8
Advertised, Eng. News, Nov. 8 and 15.
Dec. 15. Bridge, Newport, Ind..............Nov. 15
Advertised, Eng. News, Nov. 15.
Dec. 17. Bridge, Fall River, Mass..............Nov. 15
Advertised, Eng. News, Nov. 15 to 29.

#### BUILDINGS.

Nov. 15. Manufacturing supplies, New York, N. Y. Nov. 8
Nov. 15. Building, Washington, D. C..............Nov. 1
Nov. 16. High school, Paterson, N. J..............Nov. 1
Nov. 19. Elevator, Burlington, Vt..............Oct. 25
Advertised, Eng. News, Oct. 25 and Nov. 1.
Nov. 19. School, New York, N. Y..............Nov. 15
Nov. 20. Heating, Walla Walla, Wash..............Nov. 15
Nov. 21. Government building, Washington, D. C..Nov. 15
Nov. 21. Marble work, Washington, D. C..............Oct. 25
Advertised, Eng. News, Oct. 25 to Nov. 8.
Nov. 27. College building, Akron, Ohio..............Nov. 8
Nov. 28. Industrial building, Cleveland, Ohio....Nov. 8
Nov. 28. Public building, Edmonton, Alta..............Nov. 8
Nov. 29. Buildings, Fort Ethan Allen, Vt..............Nov. 1
Advertised, Eng. News, Nov. 1 to 22.
Dec. 1. Building, Raleigh, N. C..............Nov. 1
Dec. 3. Leprosy station, Hawaii ..............Nov. 1
Advertised, Eng. News, Nov. 1 and 8.
Dec. 3. Warehouse, Santa Fe, N. Mex..............Nov. 15
Feb. 8. Library, University, N. Dak..............Nov. 15
Dec. 10. Locomotive shops, Moncton, N. B......Nov. 15
Dec. 10. Dwelling, Baltimore, Md..............Nov. 15
Advertised, Eng. News, Nov. 15.
Dec. 18. Brewery, Fernie, B. C..............Nov. 15
Dec. 20. Plans and specifications, Shreveport, La..Oct. 4

#### WATER SUPPLY AND IRRIGATION.

Nov. 15. Tank, Fortress Monroe, Va..............Nov. 1
Advertised, Eng. News, Nov. 1 and 8.
Nov. 15. Reservoir, Ft. Wingate, N. Mex..............Oct. 18
Nov. 15. Water-works, Suttons Bay, Mich..............Nov. 8
Nov. 19. Well, California, Mo..............Nov. 8
Nov. 21. Pumping engine, Brockton, Mass..............Oct. 18
Advertised, Eng. News, Oct. 18 to Nov. 8.
Nov. 22. Fountain, New York, N. Y..............Nov. 8
Nov. 24. Pipe line, reservoirs, Grand Junction, Colo..............Nov. 15
Nov. 26. Water system, Des Moines, Iowa..............Nov. 15
Dec. 1. Pump well, etc., Charleston, S. C......Nov. 15
Dec. 4. Aqueduct, New York, N. Y..............Nov. 15
Advertised, Eng. News, Nov. 15 to 29.
Dec. 15. Excavation, Glendive, Mont..............Nov. 1
Advertised, Eng. News, Nov. 1 to 29.
Dec. 15. Structures, Glendive, Mont. ..............Nov. 8
Advertised, Eng. News, Nov. 8 to Dec. 6.
Dec. 20. Sluice gates, Cody, Wyo..............Nov. 15
Advertised, Eng. News, Nov. 1 to 29.
Jan. 23 ('07). Pipe, New Orleans, La..............Nov. 15
Advertised, Eng. News, Nov. 15 to Jan. 17.
No date. Ditch, Peru, Ind..............Nov. 8

#### SEWERAGE.

Nov. 15. Sewers, Des Moines, Iowa..............Nov. 8
Nov. 16. Sewers, Buffalo, N. Y..............Nov. 8
Nov. 17. Sewers, Fairbury, Neb. ..............Nov. 1
Nov. 17. Sewers, Twin Falls, Idaho..............Nov. 8
Nov. 19. Sewers, Perrysburg, Ohio..............Nov. 15
Nov. 19. Sewers, Washington, Pa. ..............Nov. 1
Nov. 19. Sewer and outfall, Los Angeles, Cal....Oct. 11
Advertised, Eng. News, Oct. 11 and 18.
Nov. 19. Sewer, Los Angeles, Cal..............Oct. 18
Nov. 19. Sewers, Roanoke, Va..............Nov. 8
Nov. 20. Sewers, Des Moines, Iowa..............Nov. 15
Nov. 21. Sewers, New York, N. Y..............Nov. 15
Nov. 22. Sewer, New York, N. Y..............Nov. 15
Nov. 26. Sewers, Norwood, Ohio ..............Nov. 1
Nov. 26. Sewers, San Jose, Cal..............Nov. 8
Nov. 27. Sewers, Washington, D. C. ..............Nov. 1
Advertised, Eng. News, Nov. 1 and 8.
Nov. 27. Sewers, Philadelphia, Pa..............Nov. 15
Advertised, Eng. News, Nov. 15 and 22.
Nov. 28. Drains, Alexandria, La..............Nov. 15
Nov. 28. Disposal plant, Baltimore, Md..............Nov. 15
Advertised, Eng. News, Nov. 15.
Dec. 1. Sewers, Rock Island, Ill..............Nov. 1
Dec. 3. Sewers, Washington, D. C..............Nov. 15
Advertised, Eng. News, Nov. 15 and 22.
Dec. 6. Sewers, Greenville, N. C..............Nov. 15
Advertised, Eng. News, Nov. 15.
Dec. 15. Sewers, West Seneca, N. Y..............Nov. 15
Advertised, Eng. News, Nov. 15 to Dec. 13.

#### STREETS AND ROADS.

Nov. 16. Macadam, Decatur, Ind. ..............Nov. 1
Nov. 16. Paving, Buffalo, N. Y..............Nov. 8
Nov. 20. Grading, Cleveland, Ohio ..............Nov. 1
Nov. 20. Paving, Des Moines, Iowa..............Nov. 8
Nov. 20. Macadam, Addyston, Ohio ..............Nov. 8
Nov. 20. Paving, Norfolk, Va..............Nov. 8
Nov. 21. Roads, New Brunswick, N. J. ..............Nov. 1
Nov. 21. Asphalt plant, New York, N. Y. ..............Nov. 1
Nov. 22. Park, New York, N. Y..............Nov. 15
Nov. 28. Paving, Montgomery, Ala..............Nov. 8
Dec. 1. Crossing, Williamsport, Pa. ..............Nov. 1
Advertised, Eng. News, Nov. 1 and 8.
Dec. 3. Paving, South Bethlehem, Pa..............Nov. 15
Dec. 12. Paving, Troy, Ohio ..............Nov. 8
Dec. 24. Grading, Madisonville, Ohio..............Nov. 15

#### MISCELLANEOUS CONTRACTS.

Nov. 15. Entrance, Brooklyn, N. Y..............Nov. 1
Nov. 15. Railway grading, Independence, Kan.....Nov. 1
Advertised, Eng. News, Nov. 1 and 8.
Nov. 15. Canal, dam, tunnels, N. Yakima, Wash. Sept. 27
Advertised, Eng. News, Sept. 27 to Nov. 1.
Nov. 15. Dam, excavation, N. Yakima, Wash.....Sept. 27
Advertised, Eng. News, Sept. 27 to Nov. 1.
Nov. 15. Steel bars, etc., Lascruces, N. Mex....Oct. 18
Advertised, Eng. News, Oct. 18 to Nov. 8.
Nov. 15. Stone, Baltimore, Md..............Nov. 15
Nov. 16. Inclined railway, Niagara Falls, N. Y...Oct. 25
Nov. 17. Sea-wall, Fort Screven, Ga..............Nov. 1
Nov. 19. Railway, Bulgaria (Foreign)..............Nov. 15
Nov. 19. Elec. Ry. construction, Louisville, Ky....Nov. 15
Nov. 19. Ditch, Oakwood, Ill..............Nov. 15
Nov. 23. Painting, etc., New York, N. Y..............Nov. 15
Nov. 23. Steel horses for dams, Wheeling, W. Va. Oct. 25
Advertised, Eng. News, Oct. 25 to Nov. 15.
Nov. 24. Wharves, New Orleans, La..............Oct. 25
Nov. 24. Dredging, Boston, Mass..............Nov. 1
Nov. 24. Retaining wall, Philadelphia, Pa..............Nov. 15
Nov. 26. Metallic sheds, Belgium (Foreign) ......Nov. 15
Nov. 27. Naval supplies, Washington, D. C..............Nov. 8
Nov. 28. Dredging, New York, N. Y..............Nov. 1
Advertised, Eng. News, Nov. 1 to 22.
Nov. 30. Tunnel, Scranton, Pa..............Nov. 15
Advertised, Eng. News, Nov. 15 and 22.
Nov. 30. Engineering supplies, Panama ..............Nov. 15
Dec. 1. Undergrade crossing, Williamsport, Pa..Nov. 1
Advertised, Eng. News, Nov. 1 and 8.
Dec. 1. Garbage reduction, Spain (Foreign) .....Oct. 11
Advertised Eng. News, Oct. 4 and 11.
Dec. 4. Naval supplies, Washington, D. C..............Nov. 8
Dec. 10. Caisson, foundation, Philadelphia, Pa..Nov. 15
Advertised, Eng. News, Nov. 15 and 22.
Dec. 11. Railway, Belgium (Foreign) ..............Nov. 15
Dec. 11. Suction dredges, Panama ..............Nov. 8
Dec. 12. Ship canal, Panama ..............Oct. 18
Dec. 12. Reconstructing cribs, Cincinnati, Ohio....Nov. 15
Advertised, Eng. News, Nov. 15 to Dec. 6.
Dec. 19. Steel stand-pipe, Guantanamo, Cuba....Nov. 15
Dec. 19. Telephone materials, Australia (Foreign). Nov. 15
Dec. 20. Sluice gates, Wyoming ..............Nov. 1
Advertised, Eng. News, Nov. 1 to 29.
Mar. 18. ('07). Tunnel, New Zealand (Foreign)..Sept. 13
Advertised, Eng. News, Sept. 13 to Mar. 14.
Apr. 12 ('07). Ditches, Brookings, S. Dak..............Oct. 18

#### CIVIL SERVICE EXAMINATIONS.

Nov. 17. Chainman, Albany, N. Y..............Oct. 25
Advertised, Eng. News, Oct. 25.
Nov. 17. Leveler, Albany, N. Y..............Oct. 25
Advertised, Eng. News, Oct. 25.
Nov. 17. Rodman, Albany, N. Y..............Oct. 25
Advertised, Eng. News, Oct. 25.
Nov. 17. Inspector, Albany, N. Y..............Oct. 25
Advertised, Eng. News, Oct. 25.
Nov. 17. Asst. Steam Engr., Albany, N. Y..............Nov. 1
Nov. 20. Arch. Draftsmen, Washington, D. C.....Oct. 25
Nov. 20. Jr. Arch. Draftsmen, Washington, D. C. Oct. 25
Nov. 20. Engr. Draftsmen, Washington, D. C.....Oct. 25
Nov. 20. Elec. Engrs. & Dftsmen, Wash., D. C...Oct. 25
Nov. 20. Heat. & Ventil. Draftsmen, Wash., D. C. Oct. 25
Nov. 21. Mech. Draftsmen, Washington, D. C..Oct. 25
Dec. 4. Chief, Water Bureau, Philadelphia, Pa..Nov. 1
Advertised, Eng. News, Nov. 1.
Dec. 5. Aids, Washington, D. C..............Nov. 8
Dec. 12. Topograph. Draftsman, New York, N. Y. Nov. 8
Advertised, Eng. News, Nov. 8 and 15.
Nov. 14. Heating, Springfield, Md..............Nov. 8

## REGARDING NEW PROJECTS

ENGINEERING NEWS desires to obtain the **earliest possible reliable information** concerning all projected work. We will appreciate any items that you may send us. Copies containing such information will be mailed to you, upon request.

ADDRESS THE

**Construction News Department**

## RAILWAYS.

*The names of parties awarded contracts are printed in capital letters.*

ALBANY & NORTHERN.—This company and the City of Albany, Ga., have reached an agreement as the result of which the road will be permitted to build through Front St. The plan calls for the construction of a tunnel nearly 400 ft. in length. J. S. Crews is Vice-Pres. and Gen. Mgr., at Albany.

ARKANSAS VALLEY. — MISHOU & WHITESCARVER, of Rocky Ford, Colo., have contract for building this line from Rocky Ford to Holly, Colo. It will be 50 miles in length. C. M. Ward is Gen. Mgr. and Ch. Engr., at Lamar, Colo.

ASTORIA & COLUMBIA RIVER.—In addition to an extension of the main line from Seaside to Tillamook, Ore., the stockholders have authorized the construction of a number of branches aggregating 150 miles, including branches from the main line up both forks of the Nehalem River to their sources. The extension of the main line from Tillamook to Newport has also been authorized, A. B. Hammond is Pres., San Francisco, Cal. G. W. Talbot is Vice-Pres. and Gen. Mgr., Astoria, Ore.

ATLANTIC & EAST COAST TERMINAL.—D. M. BAKER, P. O. Box 274, Jacksonville, Fla., has contract for all grading and tracks at the new freight terminals of the Atlantic & East Coast Terminal Co. in that city. Contract for constructing steel span across Bay St. and for two large freight warehouses, 50 × 750 ft., have not been let. J. W. Richardson is Engr.-in-Charge.

BERING, KIAM & SOUTHERN.—Incorporated in Texas to build a railroad from Bering (Moscow post-office), on the Houston East & West Texas, to Kiam, 15 miles. Capital stock, $75,000. Incorporators: Conrad Bering, R. B. Landrum, Theo. C. Bering, W. C. Bevan, F. C. Bering, Houston; W. D. Winston, C. H Mason, Bering; James E. Hill, Livingston. Principal office, Moscow, Tex.

BIRMINGHAM & MISSISSIPPI SOUTHERN.—Incorporated at New Orleans to build a line from Baton Rouge, La., northeast to Birmingham, Ala., about 250 miles. The company proposes to secure an entrance into New Orleans over an existing road. The plans also include the building of a branch line from Waynesboro, Miss., on the Mobile & Ohio, south to Scranton, an additional 100 miles. Arrangements have been made to start preliminary surveys at once. The incorporators are principally New Orleans and Mississippi capitalists. William A. Aaron, an attorney of Hattiesburg, Miss., is the organizer of the company.

BIRMINGHAM & SOUTHERN.—A 6-mile extension is contemplated to develop additional coal mines. H. M. Urban, of Ensley, Ala., is Engr.-in-Charge, and also has charge of plans and bids.

BLADEN & NORTHERN.—We are officially advised that company may let contracts next month for building its proposed line from a point near Stedman to White Oak, N. C., about 20 miles. Survey is being run. Capital and right-of-way are being secured. Construction will be light. William Moncure is Ch. Engr., at Raleigh, N. C.

BRACEBRIDGE & TRADING LAKE.—Contract has been let to GEORGE A. BEGY, of St. Catharines, Ont., for building this railway from Bracebridge, Ont., to the Lake of Bays.

BURRS FERRY, BROWNDEL & CHESTER.—Eight miles of track have been completed out of Rockland, Tex., and about 72 more miles will be built as rapidly as possible. The railroad, when completed, will connect the Sante Fe, the Frisco and probably the Kansas City Southern east of the river. It will traverse a fine timber region in East Texas, but will do a general traffic as well as to handle the lumber product. P. G. Omohondro is Ch. Engr., at Rockland.

CAIRO & THEBES.—This company may spend $300,000 in improvements in Cairo, Ill., according to reports.

CANADIAN NORTHERN.—In order to secure entrance into Ottawa, Montreal and Quebec, Messrs. Mackenzie & Mann, who control the Canadian Northern, have secured control of the Great Northern of Canada, Chateauguay & Northern, and the Quebec, New Brunswick & Nova Scotia Railway companies, and the three companies have been amalgamated under the name of the Canadian Northern Quebec Railway. Arrangements are being made for the permanent working of this line as part of the Canadian Northern System.

CANADIAN PACIFIC.—At next session of the Dominion Parliament the C. P. R. will apply for authority to build a new line from Weyburn, Sask., westward 100 miles.

CAROLINA, GLEN ANNA & PEE DEE.—Dee Allen, Pres., High Point, N. C., advises us that 21 miles of line are already completed and in operation, and that contract will be let this month for reconstruction work and for 20 miles of line. The railway will be built from Winston-Salem to Wadesboro, N. C. Right-of-way has been secured and surveys made. The work will be of a heavy nature. L. V. Edwards is Ch. Engr., at High Point.

COFFEYVILLE & MEMPHIS.—Incorporated in Oklahoma with $500,000 capital to build a line from Coffeyville, Kan., on the Atchison, Topeka & Santa Fe, the Missouri, Kansas & Texas, and the Missouri Pacific, southeast through Oklahoma via Centralia and Afton to the Arkansas State line, thence in Arkansas through the counties of Benton, Madison, Newton, Searcy, Vanburen, Cleburne, White, Prairie, Monroe, St. Francis and Crittenden to the Mississippi River, about 375 miles, with a branch 150 miles long southwest from a point on the main line to Shawnee, Okla. The incorporators include J. O. Hall, W. P. Brown, E. A. Rosser, P. H. Grahon, E. C. Kiddoo, George A Gabbler, J. E McClunry, A J. Yoke and W. C. Hall, all of Coffeyville; J. I. Lehman, of Centralia, Kan.; C. E. Bennett and O. N. Selby, of Oklahoma City.

DAWSON, EL PASO & SOUTHWESTERN.—Incorporated in New Mexico to build a railway from Dawson to Corona. Capital stock, $200,000. Incorporators: A. C. James, C. H. Dodge and James McLean, of New York City; John Franklin and H. J. Simmons, of El Paso, Tex.; E. L. Carpenter, Dawson, and W. A. Hawkins, Alamogordo, N. Mex. Principal office, Alamogordo.

DELAWARE & HUDSON.—In reference to construction in the Lackawanna and Wyoming Valleys, we are officially advised that two projects are under way as follows: Reduction of grades from Olyphant to Carbondale, Pa., from 42 ft. to 31 ft. per mile, on the two present main tracks, and building third and fourth tracks between the same points. The work is being done by the company's forces at an estimated cost of about $500,000, and at the present time is about half completed. Construction of a connection from the Plymouth & Wilkes-Barre Bridge Co.'s railroad to the Pennsylvania R. R., south of Wilkes-Barre, a distance of about 1½ miles, with an interchange yard at the Pennsylvania R. R., this connection to hold about 1,000 cars; the line crossing overhead all streets, of which there are eight including private passages. The masonry for the over-crossings is all completed and the grading is about 20% completed. All work being done by the company's forces. James MacMartin, Ch. Engr., Albany, N. Y.

Contract has been awarded to O'BRIEN & MULLARKEY, of Montreal, Que., for building a 48½-mile line between Pierreville and Ste. Philomène, Que.

DENVER & RIO GRANDE.—Regarding the report that this company plans a change of line involving a tunnel at Marshall Pass and Cerro Summit, and standard gaging beween Salida and Montrose, Colo., E. J. Yard, Ch. Engr., advises us that company has not as yet made any definite plans concerning the improvement mentioned, and the route is not even surveyed.

FERDINAND RAILROAD.—Incorporated in Indiana to build a railroad seven miles in length from Ferdinand to Jasper, DuBois County. Capital stock, $50,000. Incorporators: M. Olinger, S. W. Pitts and Mathias Olinger. Principal office, Ferdinand, Ind.

FRANKLIN & CLEARFIELD.—This railway, which is being built by the Lake Shore & Michigan Southern, will extend from Franklin to Clearfield, Pa., 107 miles, via East Sandy, Shippenville, Piney, Reidsburg, Limestone, Brookville, Falls Creek, Dubois, Rockton and Curwensville. The line is completed from Franklin to River Junction, 5½ miles, and grading is in progress from River Junction to Brookville, 50 miles. The contractors are the MILLER CONSTRUCTION CO., THOS. McNALLY & CO., the FERGUSON CONTRACTING CO., and the CRARY CONSTRUCTION CO. Chas. F. Miller is Pres., Franklin, Pa.; Samuel Rockwell, Ch. Engr., and F. E. Bissell, Principal Assistant Engr. of Construction, both with headquarters at Cleveland, Ohio.

ILWACO RY. & NAVIGATION CO.—ERICKSON & PETERSON, of Seattle, Wash., have been awarded a contract for building an extension from Ilwaco, Wash., to a point west of Knappton, Ore., 13½ miles. Estimated cost, $280,000. G. W. Boschke is Ch. Engr., at Portland. The I. R. & N. is a Harriman line.

INTERCOLONIAL.—Surveys are now being made for double-tracking the Intercolonial from St. John, N. B., to Hampton. Considerable blasting will be required and the work will be of a heavy nature. Work will not begin until next spring. W. B. McKenzie is Ch. Engr., at Moncton, N. B.

LEHIGH VALLEY. — The Wilkes-Barre "Leader" states that "arrangements are being made for the construction of aspur of railroad between White Haven and Sandy Run Junction, which will give the Lehigh Valley a more direct main line connection between the middle and lower coal field. This is an important movement as it will do away with heavy grades on the Weatherly branch, and save a 40-mile haul on coal consigned to Buffalo and Western markets. A traffic agreement existing between the Lehigh Valley and Jersey Central, whereby passenger trains were run from Hazleton to Wilkes-Barre, was annulled five years ago, owing to the companies being unable to agree on a base rate. The new spur will restore this. This will entail the expenditure of a large sum of money, and it is a very large undertaking, as about every known obstacle will be encountered, and it will take at least one year to complete the work." Walter G. Berg is Ch. Engr., 143 Liberty St., New York.

MISSISSIPPI.—We are officially informed that W. Denny & Co., lumber dealers, Moss Point, Miss., will build an extension to their logging road with their own forces. The line, when completed, will be 35 miles long, and will extend from Moss Point to Donovan, Miss. A. S. Denny is Pres. and O. H. Brown is Ch. Engr., both with headquarters at Moss Point.

NEW YORK, PITTSBURG & CHICAGO AIR LINE.—The Governor of Pennsylvania has approved the merger of the Indiana Clearfield & Eastern, the Allentown, Tamaqua & Ashland and the Brush Creek & Crow's Run R. R. companies under the name of the New York, Pittsburg & Chicago Air Line. The consolidated line will run from Allentown, Pa., to a connection with the Ohio River Junction in Beaver County, Pa., and connect with the New York Central at Dowler Junction, Clearfield County.

NORTHERN PACIFIC.—Company has let contract to WINSTON BROS., of Minneapolis, for straightening its line between Garrison and Missoula, Mont., and double-tracking the entire 73 miles.

PACIFIC & EASTERN.—Incorporated in Washington to build a railroad from South Bend to Chehalis. Capital stock, $150,000. Incorporators: Walter G. Hyman, of California; L. L. Hyman, W. S. Cram, Jacob Siler, H. G. Shoemaker, F. C. Shoemaker, of South Bend, and T. H. Donovan, of Raymond, Wash.

PORTLAND & SEATTLE. — PORTER BROS. & WELCH, Duluth, Minn., we are officially advised, have contract for 75 miles of line from Portland up the Columbia River, running east, and 75 miles starting at Spokane, Wash., and going west, making a total of 150 miles. They also have contracts for all tracklaying, bridging and ballasting on the whole line.

PUEBLO & BEULAH.—This company, which was incorporated in July, 1902, to build a steam railroad from Pueblo to Beulah, Colo., 32½ miles, and which completed nine miles of grade in 1903, is reported to have sold bonds to the amount of $900,000 to a French syndicate, the proceeds of which are to be used to complete the road. The officers are: George Peck, Cincinnati, Ohio, Pres.; J. J. Burns, Vice-Pres. and Secy.; James N. Carlile, Treas.; J. Ed. Riser, Gen. Counsel, all of Pueblo, Colo.

SAN FRANCISCO, IDAHO & MONTANA.—This railway has been surveyed from Caldwell to Homedale, Idaho, 16.4 miles, and is under survey from Homedale to Winnemucca, Nev., 180 miles. It is expected to begin construction by March 1 next. The road is projected from Butte, Mont., to San Francisco, and the line from Caldwell to Winnemucca is to be a branch. Donald Grant is Pres., Faribault, Minn.; V. G. Price, Vice-Pres., Elkader, Iowa; E. E. Springer, Secy., Caldwell, Idaho; Henry Myer, Cashier of the Hamilton National Bank of Chicago, Ill., is Treas., and James Hamilton Lewis, of Chicago, is Counsel. F. H. Richards is Ch. Engr., with headquarters at Caldwell, Idaho.

SIERRA PACIFIC.—Otto E. Bashore, Pres., 326 Main St., Porterville, Cal., writes us that "this company is now in the market for everything connected with the construction and operating equipment of the railway, and is also looking for more capital. We wish especially bids on passenger equipment and rails. Contract for grading has been already let. We have placed on the market two issues of our preferred six per cent. debenture stock, each issue being $1,000,000 in amount. The first issue is fully subscribed, and of the second $880,000 is already subscribed. Our total capital is $5,000,000, which will be increased to at least $20,000,000. The estimated cost of the construction of the road will be in round figures $26,000 a mile, using 70-lb. rails, and best quality of material throughout. We wil therefore need to secure a little more capital to construct the road. Several cities are endavoring to secure our shops and are making competitive efforts along this line, but they will probably go to Hanford. There is much difficulty in securing a sufficient or suitable quantity and quality of labor to undertake the construction work, as everyone here is too prosperous to work. Surveys have been made throughout, all right-of-way obtained, many townsites purchased by the company, and now being surveyed and colonized." The officers are: J. W. Davis, First Vice-Pres., Porterville; C. B. Reas, Second Vice-Pres., Success; T. A. Howeth, Secy., Porterville; Hon. R. Linder, Treas. L. E. McCabe is Ch. Engr., at Visalia, Cal. Contracts will be let soon. The line will be 285 miles long, extending from Globe to Fresno, and Bakersfield to San Luis Obispo and Port Hartford.

SOUTH & WESTERN.—LAWRENCE B. McCABE, of Baltimore, Md., has been awarded a contract for an 11-mile section in McDowell County, N. C. Hehas organized the McCabe Construction Co., which will have headquarters at Johnson City, Tenn.

TAYLOR, BRENHAM & HOUSTON.—We are officially advised that no charter has yet been obtained. Preliminary survey has been completed from Taylor to Brenham, Tex., by H. Pennington, Engr., 1000½ Congress Ave., Houston. The proposed line will run from Taylor to Brenham, via Lexington and Dime Box, 71½ miles, traversing rich agricultural and mining lands. Right-of-way has been obtained free of cost to the company, which is to be organized. Work will be fairly light for Texas, no rock. Maximum grade can be reduced to .75% with light work. Two 100-ft. steel spans and 10,000 ft. trestle is necessary. According to executive committee, consisting of Jas. A. Thompson, of Taylor, Chn.; M. R. Haxie, of Taylor; L. A. Wheatley, of Lexington, and D. C. Giddings, of Brenham, it is proposed to interest capital in the enterprise or construct the road by company's forces.

WINNIPEG & GALVESTON.—This company has filed an amendment to its charter in Oklahoma, increasing the capital stock to $60,000,000. The road is projected from Winnipeg, Man., to Galveston, Tex, and the route in Oklahoma is through the counties of Grant, Garfield, Logan, Kingfisher, Cleveland and Pottawatomie. The directors are: A. H. McMahan, Wakita, Okla.; W. M. McGibbon, Gibbon, Okla.; W. O. Jones, Wakita, Okla.; J. A. Koontz, Hutchinson, Kan.; T. C. Spaulding and H. V. Goodrich, Kansas City; J. H. Ledgerwood, Denver; Grant Dale, A. G. C. Bierer, Robert Sohlberg and B. F. Hegler, Jr., Guthrie, Okla.

## ELECTRIC RAILWAYS.

*The names of parties awarded contracts are printed in capital letters.*

KENNEBUNKPORT, ME. — The Atlantic Shore Line Ry. Co., which is building a road from York Beach to Kennebunkport, Me., 18 miles, expects to have the line graded by Dec. 1, so that tracklaying may be done in the spring. This line will complete connection between Portland, Me., and Boston, Mass. George A. Murch is Gen Mgr., Kennebunkport; W. E. Davis is Ch. Engr., Sanford, Me.

LEBANON, CONN.—L. E. Livermore, Pres. of the Lebanon St. Ry. Co., advises us that company is waiting session of next Legislature to have the charter extended and that little progress toward construction of its line from Norwich to Hartford will be made before next spring. No surveys have been made or other steps taken. Noted fully on Oct. 18.

GARRETT, PA.—The M[illegible]dale & Salisbury Street Railway Co. is [illegible]t to complete the construction on its lin[illegible]m Garrett to Salisbury, Pa., running th[illegible] Meyersdale and Boynton, a distance of [illegible] miles, the cost of which will approxim[illegible] $300,000. The bonds have been underwrit[illegible] 80%, and work will start at once. T[illegible]mpany desires to receive estimates f[illegible]uipment of four-motor 50-HP. d.-c. inte[illegible] cars, one freight and express car con[illegible] and also the overhead construction fo[illegible] miles and a power-house complete wit[illegible]ers, steam engines, two generators of [illegible]KW. each, pumps, accumulators, sto[illegible] batteries, switchboard and all other [illegible]aphernalia necessary to such power-hou[illegible]e officers of the company are: Orran W[illegible]nnedy, of Uniontown, Pa., Pres.; H. [illegible]mick, of Pittsburg, Secy.; Judge J. N[illegible] Martin, of New Castle, Pa., Vice-Pres. [illegible]ll further information can be obtained [illegible] W. W. Staub, of the Pittsburg & Al[illegible] Valley Co., 612 Keystone Bldg., Pitt[illegible] Pa.

RICHMOND, VA.—The Rich[illegible] & Henrico Railway Co. has applied [illegible] charter, and proposes to take over the C[illegible]s' Rapid Transit Co. and to build a [illegible]ad from the same points in the city and [illegible]he same points in the county. The offi[illegible]are: W. S. Forbes, Pres.; W. W. Jenkin[illegible]e-Pres., and John C. Hagan, Secy.-T[illegible], all of whom were interested in the T[illegible]it Company.

CHRISTIANSBURG, VA.—W. [illegible]all, Ch. Engr. of the Montgomery T[illegible]on Co., Blacksburg, Va., writes us th[illegible]ontracts will be let about Nov. 15 for b[illegible]ding the proposed electric railway from [illegible]ristiansburg to Cambria, 2½ miles. Th[illegible] will be 1½ miles of grading and one [illegible]e street railway. Noted last week. C. A. Johnston is Pres., Christiansburg, Va.

EASLEY, S. C.—C. Gadsen Sa[illegible] Anderson, S. C., has been appointed [illegible]ef engineer of the proposed railway to be built between Easley and Anderson, 27 miles.

COLUMBIA, S. C.—The Suburban Transit Co. has been granted a charter to build its proposed electric railway to Colonial Heights. The incorporators are Julius H. Walker, Ambrose E. Gonzales, J. Sumter Moore and Bruce W. Ravenel. The officers are: Julius W. Walker, Pres.; J. S. Moore, Vice-Pres., and B. W. Ravenel, Secy.-Treas.

MONROE, LA.—The city will extend the street car system a distance of about three miles.

LOUISVILLE, KY.—Bids are asked until Nov. 19 by the Marion Contract & Construction Co. for building an extension of the Louisville & Eastern Ry. from Beechwood, Ky., to Frankfort, Ky., a distance of about 46 miles. Proposals must be made on grading, ballast, bridges, tracklaying and surfacing (including ties, rails and fastenings), and fencing right-of-way. Complete plans and specifications are on file in the office of the Chief Engineer, J. B. Walker, 511 West Green St., Louisville, and at the general offices of the company, Lyndon, Ky. Noted on Nov. 1.

TALLMADGE, OHIO.—The village of Tallmadge has offered to give $5,000 and a free right-of-way through the town to the Akron & Youngstown Short Line, which is being promoted by Thomas A. Childs, of Akron. Mr. Childs claims that practically all of the right-of-way has been secured. The line will be ten miles shorter than the Erie Railway between the terminal cities, and will cross a number of townships which have no railroads of any kind. It is claimed that construction work will start in the spring.

The Portage County Commissioners have granted a franchise to the Akron & Youngstown Short Line to cross a number of highways at grade.

BRYAN, OHIO.—The Northwestern Ohio Electric Railway Co. has applied for a franchise through Bryan. The company offers to locate its power-house and car shops in that town if it is given a franchise for a line through the main street. The line will extend from Defiance through Bryan to some point in Michigan.

SANDUSKY, OHIO.—The Sandusky, Fremont & Southern Railway Co. has brought condemnation proceedings to secure a mile of right-of-way in Erie County. This is all that is required to permit the completion of the line from Sandusky to Fremont. Active construction work on the line is being pushed.

CLEVELAND, OHIO.—L. A. Smart, chief promoter of the recently incorporated Cleveland, Bedford & Geauga Lake Traction Co., is reported to have stated that the company is securing right-of-way from Bedford into Cleveland, and that it is the intention to build an independent entrance into the city. The report that the company was formed to build a new entrance to Cleveland for the Northern Ohio Traction & Light Co. is denied by both parties.

LAFAYETTE, IND.—W. K. Hatt, Professor of C. E., Purdue University, writes us in reference to report that the University students will build a section of electric railway line, that "the press items saying that we were to build an electric railroad are incorrect and without basis or without authority from this institution. What we have done is to perform the surveying operations for a section of electric road, but we do not expect to take part in the construction."

BELLEVILLE, ILL.—We are officially informed that survey has been made for the Belleville & Pinckneyville Traction Co.'s line, to be built between the places named in the title. The railway will be 46½ miles long. Harper Bros., Sexton Bldg., East St. Louis, Ill., are Engrs.-in-Chief. C. D. Turner, of Belleville, is Pres.; George F. Mead is Secy., Pinckneyville. Greater part of the right-of-way is secured.

MINNEAPOLIS, MINN.—William Peyton Mason, Pres. of the Minneapolis, Rochester & Dubuque Traction Co., 114 South Fourth St., Minneapolis, advises us that the company is ready to let contracts for its line, which is projected from Minneapolis to Dubuque, Iowa, via Rochester, Minn., and Decorah and Waukon, Iowa, 246 miles. Right-of-way is partly secured. Surveys are made and capital obtained. F. D. Woodbury is Ch. Engr., 114 South Fourth St. Local lines in Rochester will be built this winter and next spring. Thirty-five miles are graded already.

BROOKINGS, S. DAK.—Contracts will be let, probably in January, 1907, by the Brookings & Sioux Falls Ry. Co., for building its line from Brookings to Flandreau, Egan, Dell Rapids and Sioux Falls, all in South Dakota, about 75 miles. Isaac A. Smith, Ch. Engr., St. Louis, Mo., advises us that motive power will be steam and electricity. Survey has been run. Right-of-way is secured. Capital is partly obtained. Niel Stewart is Pres., at Brookings.

EL PASO, TEX.—At a meeting of landowners of the Rio Grande Valley, between El Paso and Ysleta, held at El Paso on Nov. 3, considerable stock was subscribed to the company that is arranging to build an electric railway between the points named. Frank R. Tobin has the franchise for building the proposed railway over the county roads.

DALLAS, TEX.—The three street railway systems in Dallas, all of which are owned by the Stone & Webster syndicate of Boston, will be merged into one company if the authority of the city council can be obtained. These systems are the Consolidated, the Metropolitan and the Rapid Transit. Guy E. Tripp has charge of the matter of effecting the merger. It is stated that important improvements will be made if the consolidation is effected.

SEATTLE, WASH.—E. M. Day, Bellingham, Wash., is interested in project to build an electric railway, about 160 miles in length, from Seattle to Bellingham and Vancouver, B. C. Surveys are partly made. Right-of-way is partly secured.

## LIGHT AND POWER PLANTS.

***The names of parties awarded contracts are printed in capital letters.***

SYRACUSE, N. Y.—The Onondaga Lighting Co. has been incorporated for the purpose of manufacturing gas and electricity for light, heat and power purposes. The capital is $1,000,000. The directors are L. Bedell Grant and J. Bagnell, of Brooklyn; Ashley L. Cole, Arthur McCausland and Jones A. Byrne, of New York City.

PITTSBURG, PA.—Sidney F. Heckert, Arch., has let contract to THOMAS REILLY for a power-house for St. Francis Hospital. Estimated cost, $125,000.

CENTERVILLE, MD. — The Centerville Light, Heat & Power Co. has been organized with W. J. Peall, as Pres. and Mgr.; Walter T. Wright, Vice-Pres.; J. Fletcher Ralph, Secy., and Pere T. Forman, Treas. The company will operate a plant furnishing light, heat and power. A building 30 × 75 ft. will be erected and equipped for a capacity of 2-40 KW. About $25,000 will be invested in building and equipment.

HAGERSTOWN, MD.—A meeting of the stockholders of the Hagerstown Gas Co. will be held Nov. 26 to consider increasing capital stock to $200,000 for the purpose of enlarging and improving plant. It is proposed to build a new gasholder, install new purifiers and extend gas pipes to the new additions of the city.

WASHINGTON, D. C.—Bids were opened Nov. 13, at the Bureau of Supplies and Accounts, Navy Dept., Washington, D C., for furnishing a quantity of electrical materials, as follows: (a) Three 100-k.w., 125-volt, generating sets, with complete extra and duplicate parts, at the Navy Yard, Puget Sound, Wash.; (b) same, at Navy Yard, New York; (c) four 50-kw., 125-volt generating sets, with complete extra and duplicate parts, for the Navy Yard, League Island, Pa. Bids were as follows: Diehl Mfg. Co., Elizabeth, N. J., (a) $22,076; (b) $21,176; (c) $22,113. General Electric Co., Schenectady, N. Y , (a) $19,692; (b) $18,700; (c) $17,453. Northern Electric Mfg. Co., Madison, Wis., (a) $24,167; (b) $22,034; (c) $23,079. B. F. Sturtevant Co., Hyde Park, Mass., (a) $17,718; (b) $16,908 (c) $16,302.

NORFOLK, VA.—The Bureau of Yards and Docks, Navy Dept., Washington, has awarded the following contracts for the construction and completion of the power plant at the Navy Yard, Norfolk, Va.: D'OLIER ENGINEERING CO., 121 South Eleventh St., Philadelphia, item 12, $3,900, using Northern Engineering Co.'s crane; item 9, $26,000, using Wheeler condensers and piping for condensing equipment. HEINE SAFETY BOILER CO., 1120 Pennsylvania Bldg., Philadelphia, the remainder of contract, $57,178, using Heine boilers, Murphy stokers, Foster superheaters and Sturtevant mechanical draft apparatus.

OAK GROVE, VA.—The town has voted to issue $16,000 of bonds for the purpose of erecting an electric light plant.

BLACKSBURG, VA. — The Blacksburg Power & Supply Co. has been granted a 30-year franchise to light the town.

HASTINGS, W. VA.—The Hope Natural Gas Co., of New Martinsville, will build a large steam plant and steam pumping station here where it will also build a large reservoir.

ROANOKE RAPIDS, N. C.—At a recent meeting of the Roanoke Power Co. contracts were authorized to be placed for building a concrete dam entirely across the Roanoke River, and installing a hydro-electric plant, which will develop 1,000 HP. Estimated cost $200,000. W. M. Habliston, of Richmond, Va., is Pres.

BLACKSBURG, S. C.—Southern Power Co. of Charlotte, N. C., has plans for the development of water power at Ninety-Nine Islands, on the Broad River, six miles from Blacksburg, and at Rocky Creek, two miles below the Great Falls Station on the Catawba River, which development has begun. The development at the Ninety-Nine Islands, it is stated, will produce 16,000 HP., while the Rocky Creek development will produce 30,000 HP. It is estimated that the total cost of the two developments will approximate $3,000,000. Company recently increased its capital stock from $7,500,000 $10,000,000.

CHARLESTON, S. C.—The Bureau of Yards and Docks, Navy Dept., Washington, has awarded to C. L. DE MURALT, 114 Liberty St., New York, contract for the construction and completion of a power plant at the Navy Yard, Charleston, at $83,500. Atlas boilers, Murphy stokers, Wheeler condensers, Foster superheaters, and Sturtevant economizers will be used.

PELHAM, GA.—The town will expend $40,000 in municipal improvements, consisting of water-works, electric light and ice plants. Engineers are asked to submit propositions.

CROWLEY, LA.—See under Buildings.

GLEESON STATION, TENN.—It is reported that the city is considering the installation of an electric light plant.

CARROLLTON, KY.—The city has voted affirmatively the proposed $25,000 bond issue for the purpose of enlargement of electric light plant and improvement of water-works. W. F. Schuerman is Mayor.

CLEVELAND, OHIO.—F. C. WERK, New England Bldg., has been awarded the contract for the new power plant for the N. Y. and P. O. Ore Docks Co. Estimated cost, $110,000.

NOBLESVILLE, IND.—The White River Light and Power Co. has incorporated with a capital of $675,000. The company soon will let the contract for the completion of a dam in White River and a power plant near here. A. M. Kuhn, Jno. T. Dickson, W. T. Kurtz are Directors.

ISHPEMING, MICH.—The Electric, Land & Development Co., of Traverse City, has secured sites for two dams and the water rights for a stretch of 15 miles along the Manistee River. The company expects to develop 15,000 HP., part of which it expects to sell to a proposed electric railway. This latter, it is stated, will be part of a system which will practically cover all Northern Michigan, operating under the name of the Northern Michigan Traction Company.

HANCOCK, MICH.—We are officially advised that work on the electric power plant at Portage Lake will not be taken up by the Copper Range Consolidated Mining Co. until early in 1907. W. A. Rankin, Painesdale, Mich., is Design. Engr.

MARINETTE, WIS.—The Peshtigo Co. will spend $30,000 this year on water power. A new concrete dam 200 ft. long is under construction. A power-house 24 × 40 ft. is to be erected and machinery installed. The new plant will generate over 500 HP.

GARDEN CITY, KAN.—The Secretary of the Interior has granted an extension of time to the D'Olier Engineering Co., Philadelphia, for furnishing an electric power plant for the Garden City irrigation project, Kan. According to the terms of the contract the power plant was to be installed by Jan. 20, 1907, but owing to some delay in design, work has not yet begun and the project engineers recommend the extension to March 15, 1907.

WYMORE, NEB.—H. T. Clarke, Jr., of Omaha, was granted a franchise on Oct. 26, to erect an electric light plant here.

CODY, WYO.—F. H. STANNARD has been awarded the contract to erect an electric light plant in the canyon of the Shoshone.

CORPUS CHRISTI, TEX.—E. A. Born, Royall Givens and William B. McCampbell have incorporated the Corpus Christi Ice & Electric Co. with a capital of $65,000.

MOODY, TEX.—It is reported that J. B. Earl, of Waco, Mgr. of the Brazos Valley Telephone Co., will erect an electric light plant here at a cost of about $8,000.

GALLUP, N. MEX.—The Gallup Electric Light Co. will overhaul its plant, and more machinery will be added. A line is to be run to Heaton for lighting purposes. It is reported that the company may erect an entirely new plant.

CHELAN, WASH. — The Chelan Electric Co., of which J. T. McChesney, of Everett, Wash., is Pres., has acquired riparian rights on the Chelan River between Chelan and Chelan Falls, west of Spokane, and will erect a power plant for the operation of an electric railroad from the town of Wenatchee northward along the Columbia River, with a branch to Lake Chelan, and up the Okanogan River to the northern boundary of the State. The power will also be utilized in supplying the town of Chelan with electric lights and water, and in lighting the towns of Wenatchee, Waterville, Orondo, Brewster and points along the Columbia River; also to pump water for irrigating purposes from the Columbia River onto the available benches along that stream, and for the purpose of operating the line of the Great Northern from Wenatchee to Seattle, a distance of 160 miles, and for lighting the various towns along the way.

KETTLE FALLS, WASH.—The Kettle Falls Power & Irrigation Co. has been incorporated with a capital of $500,000 by H. J. Cole, Charles V. Roberts, J. A. Elliott and D. A. Richardson of Spokane, and J. W. Reynolds of Kettle Falls. The company has acquired a power plant on the Colville River. This mill will be enlarged and an electric light plant installed to furnish the towns in the vicinity with light and power. The company has also secured several thousand acres of land which it will irrigate, and the electric power which they will generate will be utilized for lifting water from the Columbia River and for its distribution.

TRENT, WASH.—The Trent Power & Irrigation Co. has been incorporated with a capital of $15,000. The company has let the contract to FRANK McKEAN, of Chicago, for the dam and the irrigation plant, which will cost $10,000. The dam will be only 6 ft. high, which will give 250 HP., but the amount of power can be increased by increasing the height of the dam. The company will build the dam at a point about ½ a mile below Trent, where there is a fall of 16 ft. in about ¼ of a mile. The dam will be of stone and cement, and work will be started on it at once.

PASCO, WASH.—The Pasco Light & Water Co. is to construct a 100-HP. gas producer power plant to supply water, light and power to the town of Pasco. THE CHASE ENGINEERING CO., of Spokane, secured the contract for a Smith gas producer and a Rathbun three-cylinder gas engine. FAIRBANKS, MORSE & CO. secured the contract for a 100,000-gallon tank and a Gould triplex pump. The electrical equipment is to be furnished by the GENERAL ELECTRIC CO. and the wire by the AMERICAN STEEL AND WIRE CO. The water mains, hydrants, etc., are to be supplied by the WASHINGTON PIPE & FOUNDRY CO., of Tacoma. The pump will be situated about a mile from the power-house and will be driven by an induction motor. The electrical distribution will be at 2,300 volts 3-phase 60 cycles.

PASADENA, CAL.—The C. G. MOORE CO., of Los Angeles, has received the contract, at $36,000, for installing the municipal electric light plant.

OTTAWA, ONT.—The City of Ottawa has passed a by-law to raise $50,000 for the extension of the municipality's electric light plant.

OTTAWA, ONT.—Bids are asked by the Department of Railways and Canals until Nov. 29 for the surplus water power on the Trent Canal.

KINGSVILLE, ONT.—The Windsor, Essex & Lake Shore Electric Ry. Co., of Windsor, will erect a power-house here.

TORONTO, ONT.—The Consumers Gas Co. has decided to spend over $1,000,000 in new buildings, which will include a new retort house and meter, coke, condenser and boiler houses. W. H. Pearson is Gen. Mgr.

DAWSON CITY, YUKON.—A. S. Grant is at the head of a syndicate formed for the purpose of developing water power for light and heat, at a cost of $1,000,000. Work will start in the spring.

HOPE, B. C.—George S. B. Perry has made an application for 2,500 inches of water in Coquitalla River to develop the power to supply this town with electricity.

SASKATOON, SASK.—H. B. Proudfoot, C. E. and M. E., has prepared estimates for developing 10,000 HP. by damming the Saskatchewan River. The cost will be approximately $250,000.

VERMILION, SASK.—The Alberta Power, Light & Supply Co. is applying for incorporation for the primary purpose of supplying this town with electric power for lighting, heating and power purposes; also to supply the town with a telephone system.

## BRIDGES.

***The names of parties awarded contracts are printed in capital letters.***

LAWRENCE, MASS.—The City Council has voted favorably upon the question of building an iron bridge across the Spicket River, at Marston St. The City will pay about $4,000, and the Boston & Maine R. R. Co. will pay about $2,000 as its share of the expense. John P. Kane is Mayor; A. D. Marble is City Engr.

FALL RIVER, MASS.—Bids are asked until noon, Dec. 17, by Frederick N. Wales, Clk. of Joint Bd., State House, Boston, Mass., for building steel bridge about 920 ft. long, supported by stone piers and abutments, over Taunton Great River, between Fall River and Somerset, Mass. James F. Jackson is Chn. (Advertised, Engineering News.)

MONACA, PA.—The Pennsylvania R. R. Co. will construct a 4-track bridge across the Ohio River at Monaca.

PHILADELPHIA, PA.—Bids are asked until noon, Nov. 27, by John R. Hathaway, Dir. Dept. Pub. Wks., for constructing bridge, Schedule A. George S. Webster is Ch. Engr. (Advertised, Engineering News.)

PORTLAND, PA.—The County Commissioners at Easton have awarded to the PASCOE CONSTRUCTION CO., of Easton, the contract to erect a concrete arch bridge over Jacoby Creek, at Portland, at $4,990.

MORADO (Homewood post-office), PA.—The engineering department of the Pennsylvania R. R. Co., headquarters in Pittsburg, is working on plans and having surveys made for the construction of a bridge across Wallace Run at Morado, Pa. The new bridge will be constructed of concrete, and will be built several hundred yards east of the present structure in order that plans for the elimination of a bad curve and a changing of the grade at that point may be effected. Alexander C. Shand is Ch. Engr.; H. R. Leonard is Engr. of Bridges, Philadelphia.

ROANOKE, VA.—The Roanoke Street Railway Co. is having plans prepared for the erection of two new iron bridges. One will be over Tinker Creek and the other over Glade Creek.

ATLANTA, GA.—We are officially advised that on Nov. 8, Austin Bros., Austell Bldg., Atlanta, submitted bid of $15,000 for constructing bridge over Chattahoochee River, at Powers' Ferry. The Roanoke Bridge Co., Roanoke, Va., bid $12,850 for bridging same river at Johnson's Ferry. H. L. Culberson is Chn. County Comrs.

CHARLESTON, W. VA.—W. A. Hogue, City Engr., advises us that "at a recent meeting of City Council plans were received for the proposed bridge across Elk River, which plans were referred to the Bridge Committee of the Common Council and the Kanawha Valley Traction Co." Frank Hudson is Chn. Com.; William E. Chilton, Charleston, is Pres. of Traction Co.; E. W. Alexander is Gen. Mgr.

NEW ORLEANS, LA.—W. J. Hardee, City Engr., has suggested that the appropriation of $35,000 made for the construction of Aldiers' viaduct be applied for at once.

MUNFORDVILLE, KY.—The Munfordville Bridge Co. has let the contract for building a bridge here across Green River, to the CENTRAL STATE BRIDGE CONSTRUCTION CO., of Indianapolis, Ind. The contract price is $22,785, but this does not include subconstruction. The bridge will be 1,165 ft. long, and the total cost will be about $31,000.

CIRCLEVILE, OHIO.—Bids are asked until Nov. 30, for construction of a riveted low-truss bridge 60 ft. long, with 14-ft. roadway. J. H. Sweetman is City Engr.

NEWPORT, IND.—Bids are asked until Dec. 15, by the Commissioners of Vermillion County, at Newport, for constructing a highway bridge over the Wabash River, near Newport. H. T. Payne is County Audr. (Advertised, Engineering News.)

ANN ARBOR, MICH.—We are officially advised that the idea of raising the bridge crossing Huron River, at Ann Arbor, has been abandoned, as the grade of street will not permit the work to be done. Bids were asked for Nov. 7.

OTTAWA, ILL.—Plans have been submitted to the Highway Commissioners of Utica and Deer Park for rebuilding the wrecked bridge. The plans which were practically accepted contemplate the retention of the two north spans, which are yet standing, and the piers of the wrecked spans. To complete the distance across the river it is proposed to build a swing span 300 ft. in length, and another 150 ft. in length, on the south side. The total cost of the bridge as approximated will be about $53,000.

SUPERIOR, WIS.—The Belknap St. viaduct will be extended 500 ft. to Oakes Ave. at a cost of $75,000. The Great Northern and other railroad companies are interested.

APPLETON, WIS.—We are officially advised that the bids asked for Nov. 1, for constructing bridge at John St., were opened Nov. 7. After the bidder's name will be given (a) by whom the plate girder is to be supplied, (b) power by which draw is turned. Minneapolis Steel & Machine Co., Minneapolis, Minn., (a) City, (b) electric, buckle plate floor with creosoted blocks, $12,600; corrugated concrete floor, creosoted blocks, $11,794; rein., $10,865. The Strauss Bascule & Concrete Bridge Co., Fort Dearborn Bldg., Chicago, Ill., (a) bidder, substructure included; (b) electric, 4-in. creosoted plank floor, $22,200; (b) hand, same in other details, $22,400. Moravia Construction Co., 455 Rookery Bldg., Chicago, Ill., (a) City; (b) electric, buckle plate floor with creosoted blocks, $16,925. Milwaukee Bridge Co., Milwaukee, Wis., (a) City; (b) electric, buckle plate floor with creosote blocks, $13,000; 3-in. oak floor, $11,000. Wisconsin Bridge & Iron Co., Milwaukee, Wis., (a) bidder; (b) electric, reinforced concrete slab floor with creosote blocks, $11,225; same bridge with 4-in. plank floor, $10,200; lattice girder; (b) hand, 4-in. plank floor, $6,848. Charles H. Gillett is City Surv.

SAMPSON, MO.—Bids are asked until Nov. 26, by the Board of County Commissioners, at Independence, for constructing a 50-ft. steel bridge with stone abutments, over Morise Creek, near Sampson.

JOPLIN, MO.—We are officially advised that contract for the construction and erection of the steel trestle for the Southwest Missouri Electric Ry. Co. on Fourth St., across the Kansas City Southern Ry. tracks has been awarded to the BARTLETT STEEL CO., Joplin, Mo. The structure is to be double tracked, 1,600 ft. long and will have a station on each track connected by stairs to station below on the Kansas City Southern Ry. This construction will involve over 500 tons of structural steel and 1,500 yards of concrete, and will cost over $50,000. It is to be completed by April 1, 1907. A. H. Rogers is Pres. of Southwest Missouri Electric Ry. Co., Joplin.

WALLA WALLA, WASH.—Bids for the construction of the new Fourth St. bridge were opened Oct. 23, and referred to the Street Committee. The bids were as follows: Dion Keefe, as per plans and specifications, $10,400; Puget Sound Dredging Co., Plan No. 1, steel span, $5,722, Plan No. 2, steel span, $7,563, according to City's plans, $14,044; P. S. Easterday & Co., per plans and specifications, $11,485.

LOS ANGELES, CAL.—The City Council has instructed the City Engineer to complete plans for a bridge across Arroyo de Los Posas, at the foot of Death Dip.

In order to avoid the possibility of a dangerous grade approaching the new Marengo St. bridge, it is proposed to construct a frame trestle 333 ft. long with floors high enough to give a standard clearance of 22 ft. from the top of the rails.

BENSON, ARIZ.—The Board of Supervisorr has ordered the construction of and advertisement for bids for an $8,000 steel bridge to connect the Dragoon, Johnson and Yellowstone mining districts with Benson.

MONTREAL, QUE.—The Delaware & Hudson Co., which is projecting a line between Montreal and Quebec, will construct bridges over the Rivers Nicolet, Becancour, Gentilly, Origneaux and Du Chene. J. B. Clancy is Inspector of Bridges, Green Island, N. Y.

OTTAWA, ONT.—The Department of Railways and Canals is having plans prepared for a new steel bridge over the Rideau Canal at Main St. Hon. H. R. Emmerson is Minister of Railways and Canals.

WINNIPEG, MAN. — The Civic Bridge Committee has passed a resolution recommending the securing of legislation to provide for a steel bridge at McDermott Ave. An agreement has been reached between the City Council and the Canadian Northern Ry. Co. by which the latter is to build a subway at Pembina St. Col. H. N. Ruttan is City Engr.

The bid of Kelley Bros., of Kenora, Ont., for constructing cement piers of bridge at Redwood Ave., over the Red River, has been recommended to the City Council for acceptance. The bids for superstructure will be received Nov. 20.

WINNIPEG, MAN.—H. N. Ruttan, City Engr., advises us that nothing has yet been decided regarding bridge over Canadian Pacific Railway track at Winnipeg.

VICTORIA, B. C.—Estimates for bridge work on the Esquimalt & Nanaimo Ry., amounting to $132,000, have been made. The work includes the replacing of seven wooden structures with steel structures. H. E. Beasley is Supt., Vancouver, B. C.

## BUILDINGS.

***The names of parties awarded contracts are printed in capital letters.***

PORTLAND, ME.—Bids were opened Nov. 8, at the office of James Knox Taylor, Supervis. Arch., of the Treasury, Washington, for quarantine buildings and wharf, Portland, Me. The lowest bid was that of Richard D. Shanahan, Portland, Me., at $23,235; time, seven months.

STAMFORD, CONN.—Bids probably will be received soon after Jan. 1, for the erection of the Y. M. C. A. building here, which is to cost about $100,000. William Dewsnap, 150 Nassau St., New York, is Arch.

ALBANY, N. Y.—Barber & Bennett, Albany, N. Y., will shortly construct a large 3-story building for storage purposes, at Arch and Church Sts., Albany. The new building will be square, being 120 × 120 ft.

ARVERNE, N. Y.—Thomas A. Roachford, 168 Montague St., Brooklyn, will erect a large hotel here, at a cost of about $5,000,000. It will be erected on the ocean front, between Straiton and Storm Aves. It is to be of fireproof construction.

NEW YORK, N. Y.—Schwartz & Gross, Archs., 35 West 21st St., are preparing plans for an apartment house, to be erected by Bing & Bing, 198 Broadway, at Riverside Drive and 136th St., at an estimated cost of $200,000. Bids probably will be asked about Feb. 1.

Bids are asked by C. B. J. Snyder, Supt. of School Bldgs. Dept. of Education, until 11 a. m., Nov. 19, for sanitary work and gas fitting of public school No. 12 at Madison and Jackson Sts., Boro. of Manhattan; also, for the general construction of addition to and alterations in public school No. 22, at Stanford Ave. and Murray St., Flushing, Boro. of Queens, and for the general construction of new public school No. 89, on Orchard Ave., between Fifth and Sixth Sts., Elmhurst, Boro. of Queens; and for installing heating and ventilating apparatus in public school No. 1, on Summit St., between Prospect and Garretson Aves., Tottenville, Boro. of Richmond.

NEW YORK, N. Y.—The Supervising Architect, Treasury Dept., Washington, has awarded to the OTIS ELEVATOR CO., 17 Battery Place, New York, contract for furnishing an electric passenger elevator and approaches in the New York post-office building, at $7,950; time, March 2, 1907.

NEW YORK, N. Y.—The following were the lowest bids received on Nov. 5 for the erection of public school No. 23 in Boro of Queens; James MacArthur, 22 Ormond Place, Brooklyn, $69,775. Public school No. 66, Boro. of Manhattan, Thomas Cockerill & Son, 149 Columbus Ave., $244,500; Clarke & Staive, 44 Court St., Brooklyn, $278,000; C. H. Peckworth, 415 Hudson St., $279,214; Thomas McKeom, 521 West 110th St., $296,487; R. E. Henningham, 1 Madison Ave., $282,747; P. Gallagher, 1189 Broadway, $288,900; P. J. Brennan, 949 Broadway, $267,000. For heating and ventilating public school No. 172, the R. J. Sovereign Co., 63 Fifth Ave., $15,614; The James Curran Mfg. Co., 512 West 36th St., $16,289; E. Rutzler & Co., 127 White St., $14,632; Blake & Williams, 211 West 20th St., $14,876; T. Datson, 319 West 53d St., $15,170.

ATLANTIC CITY, N. J.—Solomon Greenberg, of Philadelphia, will erect in this city a modern fireproof hotel, at a cost of $400,000. It is to be a 6-story, brick and stone building.

PERTH AMBOY, N. J.—No bids were received at the office of James Knox Taylor, Supervising Architect of the Treasury, Washington, on Nov. 7, for subdrainage at the Perth Amboy Post Office Building.

JOHNSTOWN, PA.—Reezer Bros., Archs., 6200 Penn. Ave., Pittsburg, have awarded the contract for the erection of a building for the Penn Traffic Co., to the CRAMP CO., Twelfth and Chestnut Sts., Philadelphia. Estimated cost, $350,000.

McKEESPORT, PA.—The city will vote at the general election on the question of issuing $100,000 of bonds for the proposed city hall.

PHILADELPHIA, PA.—The contracts for erecting elementary schools, it is stated, have been awarded as follows: 6 division building, Greene and Carpenter Sts., Germantown, with blower ventilating and heating plant, to CRAMP & SON, Commonwealth Bldg., for $98,156; 24 division school, Second and Wolf Sts., to CHARLES McCAUL CO., 10 North Eleventh St., for $238,820.

The D. B. Martin Co. has received a permit to erect at 30th and Market Sts., an abattoir, to consist of a 3 and 4-story packing and storage house of fireproof construction. Estimated cost, $225,000. C. B. Comstock, of Pittsburg, is Arch.

BALTIMORE, MD.—Cassell & Son, Archs., Law Bldg., have prepared plans for a 5-story, brick and steel addition to store building of Bernheimer Bros., at Lexington St. and Stag Alley.

Bids are asked by Col. R. L. Hoxie, Corps Engrs., until noon, Dec. 10, for erecting keeper's dwelling at Cape Lookout Lightstation, N. C. (Advertised, Engineering News.)

WASHINGTON, D. C.—Elliott Wood, Supt. of the U. S. Capitol Buildings and Grounds, Washington, D. C., has awarded contract for brick as follows: 3,000,000 to the WASHINGTON BRICK & TERRA COTTA CO., Washington, at $7.90 a M.; 3,000,000 to the STANDARD BRICK CO., Washington, D. C., at $7.99 a M.

Ellicott Wood, Supt. of the U. S. Capitol Grounds and Buildings, Washington, has awarded to the NATIONAL FIRE PROOFING CO., of Washington, contract for furnishing terra cotta partitions for the House office building, at a figure slightly below that of their bid, Oct. 24, $15,210.

The Board of Trustees of the Protestant Episcopal Cathedral of St. Peter and St. Paul has commissioned Henry Vaughan, Arch., Boston, Mass., and George F. Bodley, Arch., England, to prepare plans for cathedral building, to cost between $5,000,000 and $10,000,000.

Bids are asked by James Knox Taylor, Supervis. Arch., Treasury Dept., Washington, until Nov. 21, for erecting U. S. Government buildings at the Jamestown Exposition.

WASHINGTON, D. C.—The contract for the erection of the Westery building at 14th and F Sts. has been awarded to EDWIN GILBERT & CO., of Philadelphia. Estimated cost, $150,000. It is to be a 9-story, brick building. Henry L. A. Jekel, of Boston, is Arch.

WASHINGTON, D. C.—Bids were opened Nov. 12, at the office of the constructing officer, Corps of Engineers, U. S. A., Soldiers' Home, D. C., for furnishing materials for the construction of a mess hall and dormitory at the Soldiers' Home, Washington. The following were the bidders: 1, O. W. Ketchem, Washington; 2, Cramp & Co., Philadelphia; 3, Phoenix Iron Works, Philadelphia; 4, National Mosaic Co., Washington; 5, National Fireproofing Co., Colorado Bldg., Washington; 6, H. G. & L. J. Dill, Washington; 7, Rowland A. Wilson, Baltimore; 8, Pan-American Plate Glass Co., Pittsburg; 9, Warren & Dyer, Washington; 10, Cutler-Marshall Co., Washington; 11, Frederick Brick Works, Frederick, Md.; 12, Snead & Co., Jersey City, N. J.; 13, J. C. Robinson & Son, New York; 14, Henry Smith & Sons Co., Baltimore, Md.; 15, Mead Roofing & Cornice Co., Philadelphia; 16 Rudolph & West Co., Washington; 17, Hugh Reilley, Washington; 18, Brown & Ketchem Iron Works, Indianapolis; 19, American Mosaic Co., Washington; 20, Parkersburg Mill Co., Parkersburg, W. Va.; 21, Barber & Ross, Washington; 22, J. C. McFarland, Chicago; 23, American Bridge Co., New York; 24, Potomac Brick Co., Washington; 25, David Lupton & Son, Philadelphia; 26, Vermont Marble Co., Proctor, Vt.; 27, John Pierce Co., New York; 28, Wm. Bradley & Sons, New York; 29, Wm. Miller & Sons, Pittsburg; 30, Standard Construction Co., Chicago; 31, Brennan Construction Co., Washington; 32, Charles Bristor, Baltimore; 33, Wm. H. Cole & Sons, Baltimore; 34, Evans Marble Co., Baltimore; 35, Penn Bridge Co., Washington. Complete Building: For furnishing all necessary materials not hereinafter provided for, all plant and all labor, and completing the building without mechanical equipment (i), if first story floor system has steel beams and girders, (2) $791,163, $796,750, $818,598 and $800,523; (13) $728,473; (14) $793,153; (27) $839,709; (29) $870,000; (ii), if first story floor system has reinforced concrete girders and beams: (27) $834,073, (29) $867,000. Marble work: (i) Exterior: (7) $287,000, (26) $286,000, $283,000, $273,000, $271,500 and $242,000; (28) $395,545; (ii) Interior: (26) $39,000; (34) $37,444. Structural steel and fireproofing: (i) structural steel for entire building, in case reinforced concrete is not used in first floor: (3) $70,722; (18) $67,200; (21) $71,000; (23) $59,930; (35) $71,470. (ii) Same in case reinforced concrete is used in first floor: (3) $62,335; (21) $63,050; (23) $52,130; (35) $62,240. (iii) Terra cotta for floor construction, etc., in case steel structure is used in first floor: (1) $40,774; (5) $45,500; (iv) same in case reinforced concrete construction is used in first floor: (5) $41,500; (v) reinforcement for the first floor in case reinforced concrete and hollow tile are used: (6) $15,400, if vertical web members are used; $30,400, if inclined web members are used. Brick, paving, etc., (i) common bricks, per M., (11) $11; (14) $10.50; (24) $7.35; (ii) for furnishing all materials except cement and paving blocks and all labor required for completely finishing all finished concrete and cement floors and the driveway paving as specified: (31) $9,346; (iii) extra concrete and cement floor work, (31) 40 cts. per sq. ft.; (iv) vitrified paving blocks, (27) $2,420; (v) extra vitrified block pavement, (31) 40 cts. per sq. ft.; (vi) terrazzo floors and mosaic borders, (4) $8,130; (18) $8,579. Ornamental and other iron work: (12) $43,610; (18) $34,000. Sheet metal work, (15) $21,585; (22) $19,696; (25) $18,400. Light metal work: No bids. Slate roofing, (15) $5,725 and $5,245; (22) $4,375; (25) $5,800. Skylight work, (15) $3,865 and $4,570; (22) $3,253; (25) $7,200. Joinery, (20) $40,567. Painting, etc., (10) $3,865. Hardware, (16) $4,675; (21) $4,875; (32) $4,178; (36) $4,614. Glazing, (9) $9,999; (17) $7,821.

RICHMOND, VA.—Bids probably will be asked, about Feb. 1, for the erection of high school building, 180 × 220 ft., of fireproof construction. Charles W. Bryant is Arch. Estimated cost, $500,000.

CHARLESTON, S. C.—Bids are asked by Mordecai T. Endicott, Ch. of Bureau of Yards and Docks, Navy Dept., until 11 a. m., Dec. 1, for installing electric elevator in building No. 5, Navy Yard. Specifications are on file at office of Engineering News.

ATLANTA, GA.—The Tabernacle Realty Co. has been incorporated with $100,000 capital stock and privilege of increasing to $300,000 to erect auditorium for which site has been purchased; the incorporators are Len G. Broughton, E. H. Thornton, E. C. Callaway, Joseph Broughton and associates.

CROWLEY, LA.—A special election will be held to vote on the question of issuing $100,000 of bonds for erecting a brick public school building, in South Crowley, and extending the electric light and water-works plants. Shelby Taylor is Mayor.

MEMPHIS, TENN.—The Memphis Hotel Co. will make repairs on the Peabody Hotel to cost $100,000, and will erect a 10-story addition at a cost of $400,000. Bids are now being received by Chighizala, Hanker & Cairns, Archs., Scimitar Bldg.

MEMPHIS, TENN.—The Memphis Builders' Exchange is subscribing stock among its members in the Memphis Builders' Exchange Bldg. Co. for the purpose of erecting a building at an estimated cost of $200,000.

CLEVELAND, OHIO.—A new Foresters' Temple is to be erected on East 55th St., near Euclid Ave., at a cost of $130,000. It is to be a 6-story, reinforced concrete and steel building, 90 × 106 ft. Blachall & Page, 1135 Schofield Bldg., are Archs.

EVANSVILLE, IND.—The Sisters of Providence have ordered plans for the erection of a $100,000 Catholic academy in this city.

TERRE HAUTE, IND.—The Board of Trustees of the Indiana Normal School have approved plans for a woman's dormitory and a new library building. Bids will be in order soon. The estimated cost of the two buildings is $180,000.

CHICAGO, ILL.—H. R. Wilson, Arch., 218 La Salle St., is preparing plans for a temple to be erected by the Grand Lodge of the Colored Knights of Pythias, at State and 33d Sts. It is to be a 4-story building, 106 × 114 ft., of fireproof construction. Estimated cost, $100,000.

Holabird & Roche, Archs., Monadnock Block, have awarded to the GEORGE A. FULLER CO., 204 Dearborn St., the general contract to erect the 5-story, store and office building, on Dearborn St., just north of the Real Estate Board Bldg., for Lyman, Lyman & Lovell. Estimated cost, $150,000.

MILWAUKEE, WIS.—Plans have been prepared by Hood & Tullgren, Archs., 86 Michigan St., for the erection of an apartment building at Milwaukee St. and Juneau Ave., for Walter Read and Thomas J. Neacy. Estimated cost, $100,000.

The contract for the structural iron work on the $140,000 brick store building to be erected by Edward Schuster & Co., has been awarded to SKABIS BROS. It is to be erected at Third St. and Garfield Ave.

SUPERIOR, WIS.—Bids were opened Nov. 12, at the office of James Knox Taylor, Supervising Architect, Treasury Dept., Washington, for installing a low-pressure heating apparatus at the post-office building, Superior, Wis. Bids were as follows: G. A. Kees Domestic Engineering Co., St. Paul, Minn., $10,500, time, Feb. 1, 1907; W. F. Porter & Co., Minneapolis, Minn., $10,051, 90 days; Hubbard Heating Co., Washington, $11,558, Mar. 20, 1907; A. J. Archambo, Minneapolis, Minn., $10,200, no time stated; Allan Black Co., St. Paul, Minn., $10,229, time, Feb. 1, 1907; American Heating Co., Superior, Wis., $11,700, May 1, 1907.

LA CROSSE, WIS.—Preliminary plans have been prepared for the erection of the La Crosse normal school, and will be submitted to the Legislature in January. Estimated cost, $200,000.

UNIVERSITY, N. DAK.—Bids are asked by the Board of Trustees of the State University, until Feb. 8, for the erection of a 2-story, fireproof library, to cost $60,000, for the State University. J. W. Wilkerson is Secy. Patton & Miller, 1411 Hartford Bldg., are Archs. The bids received Oct. 30 were rejected.

LEWISTON, MONT.—At the coming general election a special election will also be held to vote on the question of issuing $100,000 in bonds for the purpose of building a court-house.

COLORADO SPRINGS, COLO.—The Deaconess' Hospital, mentioned Nov. 8, is to be erected by the Woman's Home Missionary Society of the Colorado M. E. Church. Mrs. A. C. Peck is Pres.

DENVER, COLO.—Fallis & Stein, 311 Colorado Bldg., are Archs. for the building to be erected on 14th St., between Lawrence and Larimer Sts., by the Denver Lithographing Co., at a cost of $200,000.

SANTA FE, N. MEX.—Bids are asked until 2 p. m., Dec. 3, by the Commissioner of Indian Affairs, Dept. of Interior, Washington, D. C., for constructing addition to brick warehouse with electric lighting, at the Santa Fe school. C. F. Larrabee is Act. Comr.

SEATTLE, WASH.—The Independent Theatrical Managers are to erect a 12-story theater here, at an estimated cost of $250,000. It is to be erected at Westlake Ave. and Pine St.

WALLA WALLA, WASH.—Bids are asked by T. D. S. Hart, City Clk., until 4 p. m., Nov. 20, for erection of a steam-heating plant in the city hall and fire engine house.

LOS ANGELES, CAL.—The Hamberger Realty and Trust Co. has commissioned A. F. Rosenheim, Arch., H. W. Hellman Bldg., to prepare plans for a $150,000 building, to be erected on the James C. Kays lot at Eighth and Hill Sts.

C. J. KUBACH & CO. have been awarded the contract to erect the $350,000 building for Wright & Callender at Fourth and Hill Sts.

LOS ANGELES, CAL.—The Los Angeles Athletic Club will erect a new club-house at a cost of $400,000.

LONG BEACH, CAL.—Austin & Brown, 201 Douglas Bldg., are Archs. for the new Bixby Hotel to be erected here, at an estimated cost of $400,000. The building will be of reinforced concrete and absolutely fireproof. It is to be of Spanish and Moorish architecture.

SAN FRANCISCO, CAL.—George D. Tay will erect a $200,000 building at O'Farrell and Powell Sts.

H. H. Bancroft has applied to erect a 6-story building on the site of the old History Bldg., at a cost of $150,000. Cunningham & Politeo, 819 Market St., are Archs.

Salfield & Kohlberg, Archs., 339 Kearney St., have completed plans for the Hotel Virginia, to be erected by the E. L. Goldstein Co., at Sutter and Gough Sts., at a cost of $225,000. It is to be a 4-story brick building.

The Union Trust Co. has applied for a permit to reconstruct the interior of its building at Montgomery and Market Sts., at an estimated cost of [illegible].

OAKLAND, CAL.—A new [illegible]ater to cost $125,000 will be erected on [illegible]th St., between Clay and Jefferson [illegible] for the Orpheum Circuit Co. It is [illegible] a 4-story building, 80 × 200 ft. Wa[illegible] Mathews, 969 Broadway, is Arch.

SALT LAKE CITY, UTAH [illegible] Board of Governors of the Comme[illegible] Club has called for plans for a firep[illegible] club-house, 100 × 150 ft., to be built [illegible] near future. It will cost about $[illegible] C. M. Neuhausen, Arch., 528 Doo[illegible]ock, has submitted a set of plans, but [illegible] have not been acted upon. Fisher H[illegible] is Secy.

MONTREAL, QUE.—The [illegible]r Tire Wheel Co. is having plans p[illegible]d for a 113 × 58-ft. brick garage, w[illegible] which will be commenced this fall.

ALMONTE, ONT.—WILLIAM [illegible]EMENT has been awarded the contra[illegible] erect a new store building for W. E. S[illegible] on Mill St.

LONDON, ONT.—It is report[illegible]at Bethune & Fuchs, Archs., 215 [illegible]in St., Buffalo, N. Y., are preparing [illegible] for a 7-story hotel, to cost $130,000, [illegible]hich is to be erected here.

OTTAWA, ONT.—The Bank [illegible] Montreal will erect soon at Sommerset and [illegible]k Sts., a 6-story stone building.

TORONTO, ONT.—Carrere & H[illegible]gs and Eustace G. Bird, Archs., are prep[illegible] plans for a 10-story brick and stone b[illegible] building to be erected on King St., for [illegible] Royal Bank of Canada.

EDMONTON, ALTA.—McDoug[illegible] Secord & York have let contract for the r[illegible]oval of buildings on the site where they [illegible] erect a 5-story brick, stone and steel hot[illegible], at a cost of $100,000.

Competitive plans for erection of a $75,000 hospital to be erected here will be received by A. Butchart until Dec. [illegible]. The successful competitor will receive $[illegible], second $300, and third $200, and $100 will be divided among the others.

PRINCE ALBERT, SASK.—The School Board has secured a site on which to erect a collegiate institute, and a first-class building will be erected next year.

## WATER SUPPLY—IRRIGATION.

***The names of parties awarded contracts are printed in capital letters.***

NEW YORK, N. Y.—Bids are asked until 2 p. m., Dec. 4, by the Board of Water Supply of the City of New York, for construction of portions of the Catskill Aqueduct, aggregating 10¾ miles in length. J. Edward Simmons is Pres.; J. Waldo Smith is Ch. Engr. (Advertised, Engineering News.)

WATERVILLE, N. Y.—The citizens of Waterville, Oneida County, are contemplating construction of a reservoir for water supply with a capacity of 15,000,000 gallons at an expense of $10,000 to $12,000.

AMSTERDAM, N. Y.—It is reported that the Board of Water Commissioners contemplates building a pipe line for a distance of 12½ miles. J. R. Snell is Supt. Water-Wks. F. T. Huxley is Chn. of Trench and Pipe Line Com.

ROME, N. Y.—At a recent meeting of the Water and Sewer Board, it was decided to lay a water main to East Rome, of either 16 or 20-in. pipe. The cost will be about $16,000. Ray Armstrong is Supt.

YONKERS, N. Y.—We are officially advised that the following bids were received Nov. 8 by the Board of Water Commissioners, for installing a 6,000,000-gallon pump at the water-works here: International Steam Pump Co., 114 Liberty St., New York, Worthington triple-expansion, $13,520; Worthington triple-expansion, high-duty, $21,500; Laidlaw-Dunn-Gordon triple-expansion, crank and flywheel, $27,225; Snow Cross compound, crank and flywheel, high-duty, $23,800; Holly vertical, triple-expansion, $50,000. Platt Iron Works, 100 Broadway, New York, Cross compound crank and flywheel, high-duty, $27,280. Marine Engine and Machine Co., 126 Liberty St., New York, Cross compound, crank and flywheel, high-duty, $22,900; triple-expansion, crank and flywheel, $28,000. A. W. Kingsbury is Clk.

ALBANY, N. Y.—Wallace Greenalch, Supt. of Bureau of Water, Albany, writes us as follows: "Plans have been prepared and work probably will be let for preliminary filters of 30,000,000 gallons daily capacity, some time during the winter, so that work can be constructed next summer. By means of preliminary filters we expect to operate our present plant at a rate of 6,000,000 gallons per acre per day. A new 60-in. intake is under construction, for taking water from main river instead of from the back channel as at present."

TRENTON, N. J.—The Water Commissioners are reported to have awarded contract to JOHN E. THROPP & SONS CO., for three boilers for the pump-house.

PATERSON, N. J.—The citizens have voted affirmatively upon the question of establishing a water supply plant. H. J. Harder is City Engr.

ALLEGHENY, PA.—The Department of Public Works of Allegheny, John Swan Dir., is considering the erection of a $200,000 concrete and steel crib for the pumping station at the municipal water works.

PHILADELPHIA, PA.—We are officially advised that the following bids were received Nov. 7 by John R. Ha[illegible]away, Dir. Dept. Pub. Works, for constructing Belmont preliminary filters and filter house: J. Franklin Stuckert, 1421 Chestnut St., Philadelphia, $193,000; United Water Improvement Co., Pennsylvania Bldg., Philadelphia, $179,943; P. A. Maigne[illegible], Philadelphia, $149,200. The bids for operating per 1,000 gallons were: United Water Improvement Co., 85 cts.; P. A. Maigne[illegible], $1.

WASHINGTON, D. C.—Bids were received Nov. 10, at the office of the District Commissioners, Washington, for the following supplies: (a) 3,000 ¾-in. corporation cocks; (b) 500 1-in. same; (c) 3,000 curb cocks, ¾-in.;

(d) 200 1-in. same. Bids were as follows (unit prices): A. P. Smith Mfg. Co., (a) 92 cts.; (b) $1.50; (c) $1.36; (d) $1.92. G. & W. Mfg. Co., New York, (a) $1.24; (b) $1.84; (c) $1.74; (d) $2.48. MUELLER MFG. CO., Decatur, Ill., (awarded contract), (a) 79½ cts.; (b) $1.18; (c) $1.24½; (d) $1.72. Thomas Somerville Co., 316 13th St., N. W., Washington, (a) $1.16; (b) $1.55; (c) 85 cts.; (d) $1.25.

NORFOLK, VA.—The Bureau of Yards and Docks, Navy Dept., Washington, D. C., has awarded to JAMES D. BROOKE, Washington, D. C., contract for furnishing the pumping machinery for dry dock, Norfolk Navy Yard, Va., at his bid of $57,575. Bids were opened Nov. 3.

CHARLESTON, S. C.—Bids are asked by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., Dec. 1, for constructing pump, well, house and culvert at Dry Dock No. 1, Navy Yard, Charleston. Mordecai T. Endicott is Ch. of Bureau.

PELHAM, GA.—See under Light and Power Plants.

NEW ORLEANS, LA.—It is reported that Sewerage and Water Board will shortly ask for bids for pipe for about 100 miles of water mains in the business district. George G. Earl is Gen. Supt.

NEW ORLEANS, LA.—Bids are asked by the Sewerage and Water Board, until 3 p. m., Jan. 23, 1907, for furnishing six lots of c.-i. pipe and special castings, aggregating about 38,000 tons of pipe and 1,100 tons of specials. The pipe will be from 4 to 42 ins. in sizes. Bids are asked until same time for hauling and laying above mentioned pipe. F. S. Shields is Secy.; George G. Earl is Gen. Supt. (Advertised, Engineering News.)

CROWLEY, LA.—The city will issue bonds for the extension of its water-works system.

BRANDON, MISS.—This city has voted affirmatively the proposed $25,000 bond issue for constructing water-works. Kirkpatrick & Johnson, Jackson, Miss., are making preliminary surveys.

HAMILTON, OHIO.—John W. Hill, Consult. Engr., Cincinnati, has been chosen to take charge of improvements to the water-works at Hamilton. It is estimated that the cost will be about $115,000.

FREDERICKSBURG, OHIO.—H. D. SHANNON, of Orrville, has contract, at $6,200, for constructing water-works system. C. F. Rumbaugh is Clk. Bd. of Pub. Affairs.

CULVER, IND.—We are officially advised that the NATIONAL CONSTRUCTION CO., South Bend, Ind., has secured contract to install water system here. The supply will be taken from wells and the work will cost about $7,900.

BELDING, MICH.—The City Council is reported to have decided to construct a receiving or settling basin with a capacity of 100,000 gallons from plans of Riggs & Sherman, The Nasby, Toledo, Ohio, at a cost of about $3,000.

MUSKEGON HEIGHTS (Muskegon postoffice), MICH.—HUBERT F. YOUNG has the contract for sinking ten wells for the new municipal water-works plant.

DECATUR, ILL.—We are officially advised that on Oct. 29, the PLATT IRON WORKS, Dayton, Ohio, secured contract, at $17,575, for installing pumping engine at the Decatur water-works. This bid includes the construction of foundation and condenser. D. W. Mead, First National Bank Bldg., Chicago, is Consult. Engr.

CHICAGO, ILL.—We are officially advised that the following bids were received for Proposition 1, Section 3 of Southwest Land and Lake Tunnel, by the Department of Public Works: Joseph Hanreddy, 100 Washington St., Chicago, $99,000; Jackson & Corbett Co., North Ave. and Chicago River, $155,000. On Proposition 2, Jackson & Corbett Co. bid $155,000.

O'FALLON, ILL.—The City Council of O'Fallon is considering the question of putting in a municipal water-works system, to cost between $13,000 and $20,000.

ROCK ISLAND, ILL.—On Oct. 29, the KING-LAMBERT CONSTRUCTION CO., of Des Moines, was awarded the contract for laying the Third Ave. water main, at $18,483. Only two bids were made, the other being by the Moline Heating Construction Co., at $18,670.

DES MOINES, IOWA.—Bids are asked by J. C. Simpson, Secy. Dept. of Agriculture, until Nov. 26, for the construction of a water distributing system for the State Fair Grounds, requiring approximately 8,000 ft. of 6 and 8-in. c.-i. pipe, with specials, 20 fire hydrants, valves, etc.

MITCHELL, NEB.—Bids were recently opened by a Board of Consulting Engineers, Reclamation Service, at Mitchell, for construction of a diversion dam and headworks, North Platte irrigation project, Neb.-Wyo. No bids were received on Schedule 1, consisting of the earth embankment, and but one bid on Schedule 2, the concrete structures, that of G. F. Atkinson, Colorado Springs, Colo., at $143,720.

SHERIDAN, WYO.—GEORGE LORD is reported to have secured the contract for constructing a pipe line, at $16,708. Bids were received Oct. 24.

CODY, WYO.—Specifications and bidding sheet for sluice gates to be installed at the Shoshone and Pathfinder dams, as advertised, are on file at office of Engineering News, New York. Bids are asked until Dec. 20. See Sluice Gates, Wyoming, under Miscellaneous Contracts, Nov. 1.

GLENDIVE, MONT.—Specifications and bidding sheet for construction of structures on main canal and laterals, Lower Yellowstone Irrigation project, as advertised, are on file at office of Engineering News, New York. Bids are asked until Dec. 15.

CARTHAGE, MO.—The Carthage Water & Power Co. contemplates constructing five miles of water main extensions, for which 6, 8 and 10-in. c.-i. pipe will be required. Cost, $25,000. George G. Bains is Pres., Tulsa, Ind. T.

HOUSTON, TEX.—The Houston & Texas Central R. R. Co. will install its own water-works system here for service at its passenger and freight stations, its yards and shops. It is proposed to erect a pumping plant and a standpipe of sufficient capacity to furnish pressure over the whole property of the company. W. G. Van Vleck is Mgr., Houston.

GILMER, TEX.—The work of constructing water-works has been put under the charge of the O'Neill Engineering Co., Dallas, Tex. $22,000 worth of bonds were recently issued for this work.

ANGLETON, TEX.—A company is being formed with a capital stock of $300,000, to establish a system of irrigation in the valley of the Brazos River near here. More than 300,000 acres will be watered by the proposed system. The water will be obtained from the Brazos River by means of pumps. David M. Butler, of Houston, is the Consult. Engr.

TECUMSEH, IND. T.—The O'Neill Engineering Co., of Dallas, Tex., is in charge of the construction of water-works, for which $60,000 of bonds have been issued. W. R. Ash is Mayor.

CLINTON, OKLA.—It is reported that the City has voted the proposed $32,000 bond issue for water-works.

LA JUNTA, COLO.—T. J. SAYLER, of Lamar, Colo., is reported to have secured the contract for cleaning and enlarging the irrigating canal of the Otero Ditch Co., at La Junta, at about $35,000.

GRAND JUNCTION, COLO.—Bids are asked until 3 p. m., Nov. 24, by the City Council, for constructing the proposed Kannah Creek pipe line and distributing reservoirs. I. N. Bunting is Mayor; John M. Conley is Clk.

TACOMA, WASH.—We are officially advised that final location surveys having been completed, the preparation of contract plans and specifications is in progress for the construction of a gravity water system of 40,000,000 gallons daily capacity for the City of Tacoma. It is expected that contracts for the work will be let in December, or next January. H. J. Fuller, Provident Bldg., Tacoma, Wash., is Ch. Engr. Mr. Fuller is also preparing plans for the temporary addition of 6,000,000 gallons, daily, to the existing supply, which will be obtained from deep wells operated by an air-lift system. Bids for the latter work, which comprises wells, pumping machinery, and five miles of 30-in. wood-stave pipe, will be invited this month.

SPOKANE, WASH.—See under Light, Heat and Power Plants.

SEATTLE, WASH.—PETER DINEEN & CO., Seattle, has contract for laying water mains on Grand Boulevard and other streets, at $54,942. Other bidders were: Stirrat & Goetz, Pioneer Bldg., Seattle, $55,867; International Contract Co., New York Bldg., Seattle, $57,952; Lance & Peters, Seattle, $66,709.

CALDWELL, IDAHO.—The City Council has awarded the contract for the extension of the water-works system to THOMAS FINNEGAN, of Boise, Idaho.

NEW LISKEARD, ONT.—A water-works system will be installed at New Liskeard, at a cost of about $60,000.

LONDON, ONT.—The Water Commissioners are reported to have petitioned City Council to issue $570,000 of bonds for the construction of a new supplementary system, to bring water to the city from Komoka.

ALMONTE, ONT.—McDougall & McCrae, of Ottawa, have started taking soundings of the Mississippi River in connection with the water supply for the proposed water-works and sewerage systems of the town of Almonte. They also intend to make a survey of the district between the town and Clayton Lake for the same purpose.

GOLDSTREAM, B. C.—Capt. W. H. Van Arum is asking for bids for construction of a concrete reservoir and the necessary pipe laying and buildings for irrigation purposes.

## SEWERAGE.

***The names of parties awarded contracts are printed in capital letters.***

BOSTON, MASS.—We are officially advised that the following bids were received Nov. 9, by the Metropolitan Water and Sewerage Board for (Section 85) extension of high level sewer, South Metropolitan System, Brighton: Jones & Meehan, 10 Tremont St., $337,650; James J. Coughlan Construction Co., 104 Hanover St., $327,250; Hugh Nawn Contracting Co., Boston, $324,063; Charles R. Gow Co., 79 Milk St., $315,800; Patrick McGovern, 6 Beacon St., $314,788; Coleman Bros., 15 Court Sq., $309,025; Metropolitan Contracting Co., 95 Milk St., $296,115; T. H. Gill & Co., 88 Broad St., $206,883. William M. Brown is Engr., Sewerage Works; William N. Davenport is Secy.

SCHENECTADY, N. Y.—KELLOM & SHAFFER have the contract for sewers in Ardsley and Forest Roads.

NEW YORK, N. Y.—Bids are asked until 11 a. m., Nov. 21, by Bird S. Coler, Pres. Boro. of Brooklyn, for constructing sewers in East Fourth, West 23d and Etna Sts., and catch-basins at the junction of West Second St. and Neptune Ave.

Plans have been authorized by the Board of Estimate and Apportionment for the interborough system of trunk sewers, to drain about 2,300 acres in the southwestern section of the town of Newtown and the Flushing Ave. District of Brooklyn, near Newtown Creek. By the approval of these plans relief will be given the large population in the flooded district of Brooklyn and to several sections in Queens, including Maspeth, Glendale and East Williamsburg.

The Board of Estimate and Apportionment has appropriated $332,300 for construction of branch sewer in Ave. E, Unionport, and has promised that at a future meeting it will consider sewers for Ave. A.

NEW YORK, N. Y.—Bids are asked until 3 p. m., Nov. 22, by John F. Ahearn, Pres. Boro. of Manhattan, for constructing sewer in 204th St., between Harlem River and Ninth Ave.

SYRACUSE, N. Y.—We are officially advised that on Nov. 5, SAMUEL BONN, Syracuse, was awarded contract, at $3,475, for constructing 8-in. pipe sewer in Glen Haven. Frank Schnauber is City Engr.

WEST SENECA, N. Y.—Bids are asked until 2 p. m., Dec. 15, by the Town Board, and the Highway Commissioners of West Seneca, for constructing sewer system, including pumping and disposal plant in District No. 1. Dennison Fairchild, 935 Ellicott Sq., Buffalo, is Engr.; Henry C. Lein is Supt. (Advertised, Engineering News.)

PLAINFIELD, N. J.—We are officially advised that contract for constructing pumping or ejector plant for the proposed Southside sanitary sewer system, has been awarded to WARREN B. TRAVELL, Plainfield, at $4,655. Contract for balance of work has been awarded to PETER MORGAN, Poughkeepsie, N. Y., whose total bid was $27,069.

MERCHANTVILLE, N. J.—We are officially advised that on Nov. 10 the Borough Council received but two bids for proposed sewer construction, which have been rejected. It is probable that new bids will be asked. A. W. McCallum is Chn. Sewer Com., 26 South Third St., Philadelphia, Pa.

JERSEY CITY, N. J.—The Street and Water Board has awarded contract to J. H. LOUCHHIEN, 649 Summit Ave., for constructing sewer in St. Paul's Ave., and to PHILIP TUMULTY, for constructing sewer in Wallis Ave.

PHILADELPHIA, PA.—Bids are asked until noon, Nov. 27, by John R. Hathaway, Dir. Dept. Pub. Wks., for constructing sewers, Schedule B. The following is a description of main sewers to be constructed: Cobbs Creek Intercepting Sewer, on line of 75th St., from Cobbs Creek to Grays Ave.; in Grays Ave., from 75th St. to Island Ave.; in Island Ave. from Grays Ave. to Woodland Ave.; thence on the east side of Cobbs Creek through opened and unopened streets and through private property from Woodlands Ave. northwardly in the 40th Ward. This sewer is to be 4 ft. 9 ins. in diameter, with about 600 ft. in tunnel. Estimated cost, $75,000. Extension of Wissahickon Low Level Intercepting Sewer, along the Wissahickon Creek, through Park property, from a point south of Rittenhouse Lane to Walnut Lane, in the 21st Ward. This sewer is to be 3 ft. 6 ins. in diameter, with about 700 ft. in tunnel and with inverted siphon under Wissahickon Creek, involving the use of a coffer dam. Appropriation, $50,000. (Advertised, Engineering News.)

EAST BRADY, PA.—The State Board of Health has granted the borough permission to extend its sewerage system.

WASHINGTON, D. C.—Bids are asked until noon, Dec. 3, by the Commissioners of the District of Columbia, for constructing sewers. (Advertised, Engineering News.)

BALTIMORE, MD.—Bids are asked until 11 a. m., Nov. 28, by the Board of Awards of Baltimore City, for erecting a sewage pumping plant complete. Peter Leary, Jr., is Chn.; Harry W. Rodgerson is Secy. (Advertised, Engineering News.)

BALTIMORE, MD.—M. A. Talbott Co., 415 American Bldg., Baltimore and South Sts., was the lowest bidder for the construction of about two miles of concrete sewers, 12 ft. in diameter. Estimated cost, $300,000. Work is to be completed in 350 days. Calvin W. Hendricks is Ch. Engr., Sewerage Comn., 904 American Bldg.

PORTSMOUTH, VA.—This city contemplates constructing sewer in the Fifth Ward, for which $110,000 of bonds will be issued. The installation of electric light plant is also being considered. L. P. Slater is City Clk.

WYTHEVILLE, VA.—We are officially advised that the Wytheville Sanitary Co. will install sewers here. A F. Brown, of Culpeper, Va., is Engr.

GREENVILLE, N. C.—Bids are asked until 10 a. m., Dec. 6, by the City Council, for constructing sewer system in Greenville, approximating four miles of pipe. J. L. Ludlow, Winston-Salem, N. C., is Engr.; J. C. Tyson is Clk. (Advertised, Engineering News.)

BAINBRIDGE, GA.—We are officially advised that, on Nov. 8, BOSLER & FLYNN, Chattanooga, Tenn., were awarded contract, at $31,290, for constructing about nine miles of pipe sewers in Bainbridge. Other bidders were: James O'Donnell, Milwaukee, Wis., $32,537; C. M. Burkhalter, Birmingham, Ala., $33,805; Russell Contracting Co., New York, N. Y., $37,409; West Construction Co., Chattanooga, Tenn., $37,970; Miller Paving Co., Memphis, Tenn., $34,848. The bids of Sloan & Lutz, Newark, N. J., Turner & King, Des Moines, Iowa, Berghaus & Moffit, Harrisburg, Pa., and Bryan & Co., Jacksonville, Fla., which were submitted, were not totaled. E. A. Wimberley is City Clk.

APALACHICOLA, FLA.—The City has appropriated $10,000 to construct sewerage system.

MOBILE, ALA.—We are officially advised that the folowing bids were received, Nov. 8, by the Board of Public Works, for constructing storm sewers: Jett Bros. Construction Co., Mobile, $66,900; Sullivan & Long, Bessemer, Ala., $71,202; SOUTHERN BITULITHIC CO., Nashville, Tenn., (awarded contract), $54,950. The bids received for constructing combined curb and gutter were: West Construction Co., $9,655; G. W. Graham, Freeport, Ill., $8,754; J. C. Everroad, Columbus, Ind., $8,067; Brandon & Son, Mobile, $11,671; Gilsonite Construction Co., St. Louis, Mo., $10,041; SOUTHERN BITULITHIC CO. (awarded contract), $7,724. J. J. McMahon is Asst. Secy.; Wright Smith is Ch. Engr. Itemized bids for this work may be seen under Contract Prices, this issue.

GREENVILLE, ALA.—We are officially advised that CALLAHANE & VANDERVOORT, of Jamestown, N. Y., have contract to construct between four and five miles of sewers, at $8,411. Arthur Pew, Atlanta, Ga., is Des. Engr.; J. J. McMullan is Mayor.

CROWLEY, LA.—The City has voted to issue $100,000 of bonds for sewerage system, the enlargement of the water-works and electric plant.

ALEXANDRIA, LA.—Bids are asked until Nov. 28, by the Red River, Atchapalaya and Bayou Boeuf Levee Board for extending drainage system from Bayou Jack, in Avoyelles Parish, 37 miles to Bayou Courtableau, in St. Landry Parish, at a cost of about $150,000.

LOUISVILLE, KY.—The proposition to issue $4,000,000 of bonds to construct a comprehensive system of sewerage, which was submitted to the vote of the residents of this city on Nov. 6, was carried. The Commissioners of Sewerage will now proceed with the preparation of details of the system, the general design having been worked out previous to the election. Construction will begin as soon as possible. J. B. F. Breed is Ch. Engr., 503 Equitable Bldg., Louisville.

PERRYSBURG, OHIO.—Bids are asked by the Board of Public Service until Nov. 19, for constructing 15-in. storm sewer, catch-basins, etc.

EAST LIVERPOOL, OHIO.—The Board of Public Service has let contract to GEORGE JONES to build the McQueen's Run storm sewer, at $3,500.

SALEM, OHIO.—The plans of Chapin & Knowles, Pittsburg, Pa., for septic tanks, dosing pond and filters for a disposal plant, costing $33,000, have been submitted to the Board of Public Service, with recommendations. B. Morris French is City Engr.

CINCINNATI, OHIO.—Bids are asked until noon, Nov. 20, by the Board of Public Service, for constructing sewers in Glenway, Second, Third and Fourth Aves. About 4,500 ft. of 12 to 24-in. pipe will be required. There will be 610 ft. of 3½-ft. brick sewer. Estimated cost, $16,938. Charles N. Danenhower is City Engr.

The William Heffron Construction Co., 810 Neare Bldg., submitted the lowest bid for constructing 4-ft. brick sewer in Forest Ave., at $6.70 a lin. ft. Total cost, $24,312. Bids were received by the Board of Public Service on Nov. 7. M. J. Keefe is Clk. of Bd.

KOKOMO, IND.—The Board of Public Works will soon ask for bids for construction of two sewers. J. A. Burkhalter is Chn.

EVANSVILLE, IND.—We are officially advised that R. L. Sackett, C. E., Earlham College, Richmond, Ind., is designing a sewage disposal plant for the Southern Hospital for the Insane at Evansville. The plans will call for concrete septic tank and intermittent sand filtration. This replaces a chemical precipitation system.

COVINGTON, IND.—We are officially advised that on Nov. 7 A. J. HARDING & CO. were awarded contract for constructing sewers and catch-basins in Covington.

HART, MICH.—The Village Council has decided to construct sewers, for which purpose bonds have been issued. F. F. Wetmore is County Surv.; Irvin Daybrash is Clk.

PEKIN, ILL.—It is reported that brick and pipe sewers will be constructed here, at a cost of about $112,000. Benjamin F. Smith is Engr., Pekin.

OSHKOSH, WIS.—A sewer system is to be constructed between Oshkosh and Fond du Lac in the near future. George H. Randall is City Engr.

RACINE, WIS.—The Board of Public Works has been instructed to prepare plans, specifications, and estimates for sewers in Water, Villa and 15th Sts. O. C. Peterson is Chn. St. Com. P. H. Connolly is City Engr.

DES MOINES, IOWA.—Bids are asked until Nov. 20, by the Board of Public Works, for constructing sewers in various streets of the city. W. W. Wise is Pres. Bd.

FORT SCOTT, KAN.—This city contemplates constructing a vitrified pipe sewer, to cost $15,000. U. S. Storer is City Engr.

LARNED, KAN.—H. A. Rowland, of McPherson, Kan., has been appointed to prepare plans and specifications for a sanitary sewerage system.

DERMOTT, ARK.—It is reported that it is proposed to construct a sewer system, at a cost of $10,000. Theo. Hartmann, of Little Rock, is Engr.; Jefferson Wright is Mayor.

LAWTON, OKLA.—The City has under consideration the extension of sewer and water systems, to cost about $50,000. W. R Julian is City Clk.

LOS ANGELES, CAL.—F. W. WHITTIER, Copp Bldg., has contracts to construct sewers in Broadway, at $4,437, and in Spring St., at $4,900. Homer Hamlin is City Engr.; H. J. Lelande is City Clk.

BRAMPTON, ONT.—A sewer system will be installed at Brampton, at a cost of about $32,000.

WATERLOO, ONT.—The Town Council has decided that a by-law be voted upon to raise $23,000 for extending and improving sewer farm.

PEMBROKE, ONT.—The Town Council has given notice of its intention to construct sewers in Prince, Doran and Herbert Sts.

KAMLOOPS, B. C.—Contracts for constructing sewer system have been awarded as follows: 20,000 ft. vitrified sewer pipe to E. J. PRIOR & CO., of Kamloops, at $6,903; one septic tank and 35 manholes to JOHNSTON & CO., Kamloops, $6,889, and for evcavating backfill, constructing flush tank and lampholes and maintaining system one month after completion, to SINCLAIR & SPENCER, of Vancouver, at $15,248. J. J. Carment is City Clk.

## GARBAGE DISPOSAL.

*The names of parties awarded contracts are printed in capital letters.*

PHILADELPHIA, PA.—On Nov. 6, John R. Hathaway, Dir. Dept. Pub. Wks., awarded the contract for removing garbage and dead animals next year to the PENN REDUCTION CO., Rothschild Bldg. The contract price is $418,500, an increase of $18,925 over that paid to the same company for the same work this year. The only other offer was that of David Peoples, who bid $440,000.

The bids for garbage collection in the Eighth District, which comprises territory between Poplar St. and Lehigh Ave., were received Nov. 9. The bids were as follows: Peoples Bros., 2510 Callowhill St., $127,999; Edwin H Vare, $123,899; James Curran, $135,000, David McMahon, Main St. and Chelten Ave., $126,485.

BALTIMORE, MD.—The Southern Reduction Co., Samuel Rice, Pres., will rebuild at once its plant which was recently destroyed by fire at a loss of $50,000.

ASHEVILLE, N. C.—This city will vote Dec. 6 upon the issuance of $10,700 of bonds for erection of crematory. A. S. Barnard is Mayor.

BIRMINGHAM, ALA.—An ordinance was introduced in City Council on Oct. 17, providing for the immediate erection of a crematory.

FORT WAYNE, IND.—FRANK JACOBS has been awarded contract for collection of garbage in the city for 1907.

SIOUX CITY, IOWA.—The American Peat & Fuel Co., of Sioux City, is reported to have been incorporated at Sioux City on Oct. 15, with a capital of $100,000, for the manufacture of fuel from refuse and garbage. The company expects to build a plant this fall near the stock yards and packing houses and utilize the refuse from those industries.

EDMONTON, ALTA.—DECARIE BROS., Minneapolis, have secured the contract to supply this city with an incinerator. Price, $40,500. J. May is Mayor.

## STREETS AND ROADS.

*The names of parties awarded contracts are printed in capital letters.*

TAUNTON, MASS.—HADSAM & CO., of Worcester, Mass., have been awarded contract for 5,500 sq. yds. cement paving on Summer St., at $1.60 a sq. yd.

BOSTON, MASS.—John R. Roblin, Ch. Engr., advises us that contract for grading road in Lynn Fells Parkway, from Middlesex Fells Reservation to Green St., Stoneham and Melrose, for which bids were received Nov. 5, by the Metropolitan Park Comn., 14 Beacon St., Boston, has been awarded to ROWE & PERINI, of South Framingham, Mass., at $3,756. Other bidders were: T. H. Gill & Co., 88 Broad St., Boston, $8,879; R. F. Hudson, Melrose, $41,886; Coleman Bros., 15 Court Sq., $41,898; M. McDonough, Swampscott, $42,392; A. Delsignore, Boston, $43,218; Frank Williams, Boston, $44,254; A. G. Tomassello, Dorchester, $45,386; T. Stuart & Sons Co., Newton, $45,804; W. Shea & Son, West Quincy, $53,150; Fred. E. Ellis, Melrose, $53,362; Brune, Solomone & Petitti, Boston, $56,120; William H. Ward, Lowell, $56,718.

LENOX, MASS.—The bids received Oct. 30, for improving state highways at Lenox were as follows: M. L. Camarco, $24,768; Fred. E. Ellis, $24,152; W. H. Mague Co., $21,876; J. W. Polcaro, $20,058; O. T. Benedict, $19,769; R. F. Hudson, $19,679; W. N. Flint Granite Co., $19,638.

ALBANY, N. Y.—Henry A. Van Alstyne, State Engr. and Surv., on Oct. 31, received the following bids for the improvement of State highways: On Fonda-Tribes Hill Road No. 303, Montgomery County, 2 1-5 miles, Alonzo Schaupp, Albany, N. Y., $20,310; John Weber & Sons, Inc., New York, $20,500. On Valley Road-Camillus Road No. 329, Onondaga County, 3 1-3 miles, D. V. Brown, Glens Falls, N. Y., $35,000; J. Chas. Dayton, Auburn, N. Y., $31,997; C. H. Quereau, Baldwinsville, N. Y., $30,250. On Syracuse Turnpike, Road No. 337, Madison County, 1½ miles, D. V. Brown, Glens Falls, N. Y., $14,500. On Augusta Road No. 368, Augusta, Oneida County, 3 2-3 miles, John H. Gordon, Albany, N. Y., $34,500. On State Road No. 380, Homer, Cortland County, 4 1-3 miles, Mott & Kemper, Utica, N. Y. $37,300. On Fleming Road No. 384, Cayuga County, 3 1-5 miles, Scofield Co., Philadelphia, $28,250; John H. Gordon, Albany, N. Y., $37,400; D. V. Brown, Glens Falls, N. Y., $31,554. On Bristol Valley Road No. 396, section 2, Ontario County, 6 2-3 miles, James Anderson, Glens Falls, N. Y., $57,500. On Augusta-Vernon Center Road No. 406, Oneida County, 3 4-5 miles, Estate of Amos D. Bridge, Hasardville, Conn., $34,760; John H. Gordon, Albany, N. Y., $38,500. On Belleville-Adams Road No. 424, section 1, Jefferson County, 1 2-3 miles; F. Williams, Belleville, N. Y., $11,000. On Skaneateles-West Lake Road No. 386, sections 3, 4, 5, Onondaga County, 3 4-5 miles, John Young, Syracuse, N. Y., $31,994; J. Charles Dayton, Auburn, N. Y., $34,397. On Elbridge Road No. 487, Onondago County, 3 2-3 miles, D. V. Brown, Glens Falls, N. Y., $36,487; J. Charles Dayton, Auburn, N. Y., $41,197. On Norwich-North Norwich Road No. 505, Chenango County, 4 2-3 miles, D. V. Brown, Glens Falls, N. Y., $37,769; Joseph McCormick, East Providence, R. I., $43,200. On Auburn-Seneca Falls Road No. 590, Cayuga County, eight miles, Scofield Co., Philadelphia, Pa., $69,660; P. F. Herlihy, Glens Falls, N. Y., $72,390. On Moravia-Niles Road No. 591, Cayuga County, 10 4-5 miles, James Anderson, Glens Falls, N. Y., $82,392; Scofield Co., Philadelphia, Pa., $86,330; F. Arrigoni, Durham, Conn., $90,000.

Contracts have been awarded as follows: To C. H. QUEREAU, Baldwinsville, N. Y., Valley Road-Camillus, No. 329, at $30,250. To MOTT & KEMPER, Utica, N. Y., State Road No. 380, Homer, $37,300. To SCOFIELD CO., Philadelphia, Pa., Fleming Road No. 384, $28,250, and Auburn-Seneca Falls Road No. 590, $69,660. To ESTATE OF AMOS D. BRIDGE, Hazardville, Conn., Augusta-Vernon Center Road No. 406, $34,760. To F. WILLIAMS, Belleville, N. Y., Belleville-Adams Road No. 424, section 1, $11,000. To JOHN YOUNG, Syracuse, N. Y., Skaneateles-West Lake Road No. 486, $31,994. To D. V. BROWN, of Glens Falls, N. Y., Elbridge Road No. 487, $36,487, and Norwich-North Norwich Road No. 505, $37,769. To JAMES ANDERSON, Glens Falls, N. Y., Moravia-Niles Road No. 591, $82,392.

No bids were received on following roads: Redwood-Alexandra Bay Road No. 236, Jefferson County, 4 1-5 miles; Syracuse-Watertown Road No. 278, Oswego County, 2½ miles; West Oswego River Road No. 279, Oswego County, 2½ miles; Cemetery Road No. 291, Onondago County, one mile; Skaneateles-Hamilton Road No. 330, Onondaga County, 2½ miles; State Road, Scott, No. 381, Cortland County, 2¾ miles; Bristol Valley Road No. 404, section 3, Ontario County, two miles; Watertown-Theresa Road No. 423, section 3, Jefferson County, 4 1-5 miles; State Road No. 426, section 2, Jefferson County, four miles; Phoenix-Pennellville Road No. 450, Oswego County, two miles; Fulton-Volney Road No. 539, Oswego County, two miles.

ALBANY, N. Y.—Only one bid was received by the Board of Contract and Supply, Albany, for the improvement of Van Woert St., from western end of present pavement to a point about 703 ft. west of west line of Swan St., that of Michael F. Dollard, Albany, at $10,700. The work may be readvertised.

The Board of Contract and Supply has awarded to MICHAEL F. DOLLARD, Albany, contract for improvement of Van Woert St., from end of present pavement westerly to a point beyond Swan St. Contract price is $10,730. Walter E. Melius is City Engr. Isidore Wachsman is Clk. of Bd.

NEW YORK, N. Y.—Bids are asked until 3 p. m., Nov. 22, by the Park Board, for constructing a portion of Colonial Park, north of 149th St., in the Borough of Manhattan. Moses Herrman is Pres. Dept. of Parks.

SYRACUSE, N. Y.—We are officially advised that on Nov. 5, C. J. Sullivan, 126 South Clinton St., Syracuse, submitted the lowest bid, at $9,720, for paving 2,200 ft. with brick. Warner Quinlan Asphalt Co., 438 Calina St., Syracuse, bid lowest, at $9,237, for paving with Trinidad asphalt. The Warren Bros. Co., 93 Federal St., Boston, was the only bidder for bitulithic pavement, at $11,629. F. J. Schnauber is City Engr.

WEST HOBOKEN, N. J.—CAVANAGH & HEAGNEY have been awarded contract at $5,460, for paving Washington St., with Belgian block.

WILKES-BARRE, PA.—The contract for constructing a county road from Hillside to Huntsville has been awarded to A. H. COON, of Kingston, for $15,980. James M. Norris, is County Audr.

SOUTH BETHLEHEM, PA. — Bids are asked by the Borough Secretary until Dec. 3 for paving portions of Third, Fourth and Wyandotte Sts. and Broadway, 37,000 sq. yds.

PHILADELPHIA, PA.—It is reported that a parkway will be constructed from Logan Sq. to Fairmount Park at a cost of $250,000. John R. Hathaway is Dir. Dept. Pub. Wks.

ST. MARYS, PA.—It is reported that this Borough will pave between 5,000 and 10,000 yds. with brick. E. E. Willard is Engr.

BALTIMORE, MD.—The Board of Awards on Oct. 31, awarded the contract for paving Catherine St., from Frederick Ave. to Lombard St. with vitrified brick to WILIAM L. ELDER. His bid of $10,550 was the lowest bid received on all materials.

ORLANDO, FLA.—It is reported that WARREN BROS., of Tampa, Fla., have contract for doing a quantity of paving.

MOBILE, ALA.—We are officially advised that the SOUTHERN BITULITHIC CO., Nashville, Tenn., on Nov. 8, secured contract, at $87,441, for paving 40,670 sq. yds. with 2-in. bitulithic on 4-in. concrete foundation. The National Bitumen Co. bid $85,407 for laying 40,670 sq. yds. bitu-mineral and foundation. J. J. McMahon is Asst. Secy.; Wright Smith is Ch. Engr. Bd. of Pub. Works.

NASHVILE, TENN.—It is reported that the city will extend the paving of Commerce St., at about $150,000. W. W. Southgate is City Engr.

LOUISVILLE, KY.—The Board of Public Works has awarded contract for paving with brick several alleys to HUMPICH & STAEBLER, at $18,500.

HAMILTON, OHIO. — The ANDREWS PAVING CO. has been awarded contract for paving Park Ave. with sheet asphalt, at $23,000.

MADISONVILLE (Cincinnati post-office), OHIO.—Bids are asked until Dec. 24 by the Village Council for improving a portion of Clason St. and Stewart Pl., by grading, curbing, and macadamizing the roadway. J. A. Conant is Clk.

TROY, OHIO.—Bids are asked until Dec. 12, by the Board of Public Service for about 2,700 sq. yds. of vitrified brick, asphalt or bitulithic paving and about 3,000 lin. ft. of curb. L. A. Ziegenfelder is Clk.; H. J. Walker is City Engr.

GARY, IND.—A contract for paving has been awarded by the Town Board of Gary to the ILLINOIS IMPROVEMENT & BALLAST CO., 59 Clark St., Chicago, at $600,000. The contract calls for cinder filling, a granite-top dressing and a combination curb wall and cement sidewalks.

CROWN POINT, IND.—We are officially advised that D. A. FATOUT, of Indianapolis, Ind., has secured contract to construct gravel roads in Cedar Creek and West Creek Townships.

TERRE HAUTE, IND.—The contract for improving Road No. 5 in Pierson Township, has been awarded to ELIJAH E. REED, at $5,946. MALADY C. LLOYD has contract to improve Road No. 2, in Linton Township.

DETROIT, MICH.—It is reported that $300,000 will be expended in extending and widening Washington Boulevard. Robert H. McCormick is City Engr.

MADISON, WIS.—It is reported that the city will macadamize Livingston and Blount Sts., from Johnson to Washington Sts., and Dayton St., from Blair to Livingston Sts. J. F. Icke is City Engr.

OSKALOOSA, IOWA.—Bids will be receved about Jan. 1 for street paving in Oskaloosa. C. E. Monroe is City Clk.

ST. PAUL, MINN.—About five miles of paving will be done south of Summit Ave., between Oakland and Milton Sts. L. E. Rundlett is City Engr.

DULUTH, MINN.—Thomas F. McGilvray, City Engr., is reported to have estimated the cost of improving a portion of Third St. with rock macadam at $7,450, and with tar macadam $9,052; Second St., with tar macadam $63,998, with asphalt $83,753.

WINONA, MINN.—Bids are asked by City Council until Nov. 19, for paving with vitrified brick, alleys in Blocks 24 and 144. G. P. Coleman is City Engr.

CROOKSTON, MINN.—The City Council has ordered that Houston Ave. be paved with asphalt, and that Cowing St. be graveled and curbed. The cost of the improvements is estimated at $75,000.

SIOUX FALLS, S. DAK.—The following streets will be improved in this city: Main Ave., from Grigsby to Hills St.; Dakota Ave., from Third to Fourth Sts.; Spring Ave., from Sixth to Eighth Sts., and Franklin Ave., from Third to Sixth Sts. F. W. Pillsbury is Mayor. Lewis Larson is City Audr. S. B. Howe is City Engr.

ST. JOSEPH, MO.—The following bids are reported received for paving with sandstone block a portion of Fourth St.: ROCKLIFFE & GIBSON, 619 Edmond St., $27,986 (awarded contract); Phoenix Brick & Construction Co., $33,049; C. W. Dillingham & Co., $37,062, and G. O. Skilbred, $39,651.

LITTLE ROCK, ARK.—JOSEPH McCOPPIN has contract for paving Louisiana and Ashley Sts., at $1.90 a sq. yd. for paving and 40 cts. a sq. yd. for excavating.

SEATTLE, WASH.—East Jefferson St. will be paved from Broadway to 21st St. and 16th, 17th and 18th Sts., will be paved from Yesler Way to East Columbia St. Estimated cost, about $190,000. R. H. Thomson is City Engr.

ESTACADA, ORE.—We are officially advised that contract for paving part of Broadway has been awarded to AL. LINDSAY, of Estacada, at $4,725. E. S. Warner is City Recdr.

SACRAMENTO, CAL.—The Board of Trustees has awarded the contract for macadamizing Seventh, Eighth, Ninth and Tenth Sts. to CLARK & HENERY CONSTRUCTION CO., at $10,500.

CALGARY, ALTA.—The City Council has decided to pave certain streets in this town at an estimated cast of $88,000. F. W. Thorold is City Engr.

## MANUFACTURING PLANTS.

*The names of parties awarded contracts are printed in capital letters.*

FALL RIVER, MASS.—CHAUNCEY H. SEARS has been awarded the contract to erect the proposed mill to be erected by the Lincoln Mfg. Co. It is reported that the mill will be equipped with 30,000 spindles.

LEOMINSTER, MASS.—The Leominster Button Co. will erect a 2-story factory, 120 × 40 ft. There will also be a boiler and engine house with other outbuildings.

ANSONIA, CONN.—The Ansonia Electrical Co., manufacturers of insulated wire, is planning to make a large addition to its plant. The main building is to be four stories high, brick, 50 × 80 ft. Contracts will soon be awarded. Estimated cost, $50,000.

WATERBURY, CONN.—Plans are being prepared for the erection of a plant for the manufacture of sheet and rod brass for the Chase Rolling Mill Co. of this city.

NEW YORK, N. Y.—John Snyder, Arch., 123 East 23d St., has prepared plans and is ready for bids for the erection of a 5-story extension, 59 × 95 ft., and adding two stories to the 3-story factory, at 429-37 East 144th St., of M. F. Westergren. Estimated cost, $80,000.

Arthur Arctander, Arch., 523 Bergen Ave., Brooklyn, has plans for a 4-story, stone and concrete factory building on 137th St., near Willow Ave., for the Columbia Wax Works. Estimated cost, $22,000.

ROCHESTER, N. Y.—The Warren Preserving & Packing Co., of Syracuse, are preparing to erect a large sauerkraut factory here.

JERSEY CITY, N. J.—The Cook Spring Co., 247 Center St., New York, are having plans prepared by Jos. Broome, Arch., 123 Liberty St., New York, for a 2-story brick factory building to be erected here on Division St., at a cost of $50,000.

CAMDEN, N. J.—It is reported that the Porcelain Trust will erect a large plant here at a cost of $500,000.

PHILADELPHIA, PA.—The Joseph Black & Sons Co. will erect a large hosiery mill in West York Borough, a short distance from the limits of this city. It will be one of the largest mills of its kind in the state when completed.

Watson & Huckel, Archs., 1211 Walnut St., have plans ready for bids for a 5-story factory building at 835 Arch. St., for T. D. Dillon.

F. C. Michaelson, Land Title Bldg., who has the contract for erecting 3-story addition to factory for Swenk-Benson is asking for sub bids.

BALTIMORE, MD.—The Consolidated Cotton Duck Co. of this city [illegible] spending about $1,000,000 in improvements [illegible] the various plants in the South by [illegible]ing wornout machinery and otherwise [illegible]g the mills up to date.

NORFOLK, VA.—Contr[illegible] have been awarded by the Kramer T[illegible] Co. for the erection of the largest ci[illegible] factory in the world. It is to be a [illegible]y building covering an entire block.

CHARLOTTE, N. C.—J[illegible] HAAS has been awarded contract to [illegible] plant for Carson Brick Co. Noted in [illegible] of Nov. 1.

GREENSBORO, N. C.—Th[illegible]thern Ice & Cold Storage Co. has b[illegible]corporated with a capital of $75,000 by [illegible] A. Powers, Thomas A. Armstrong, Wil[illegible] Armstrong and H. M. Armstrong.

COLUMBIA, S. C.—D. G. Z[illegible] 800 National Loan & Exchange Ba[illegible]dg., proposes to erect a cement block [illegible]facturing plant here at a cost of abou[illegible]000.

SUMMERVILE, GA.—The [illegible]mmerville Cotton Mills have awarded co[illegible] for the erection of buildings for plant. [illegible] D. Taylor is Pres.

ROCK MART, GA.—It is re[illegible]d that a hosiery mill is to be erected h[illegible]

AUBURN, IND.—The Chappel [illegible]nace Co. of Morencie, Mich., will erect a [illegible]ge reinforced cement factory buildi[illegible]ere and move the plant to this city. Bi[illegible] will, it is said, be in order soon.

GREENFIELD, IND.—The Bro[illegible]yn Brick Co. has been incorporated to [illegible]struct a large brick plant. Francis G. B[illegible]r, H. H. Rock and W. R. McKowan are directors.

LINTON, IND.—The Linton I[illegible] & Cold Storage Co. has been incorporated to construct and equip an ice and cold storage plant. Calvin F. Stein, Julius F. Cassell and W. H. Griffin are directors.

MARION, IND.—The Murilla Motor Car Co. has been incorporated to establish and equip a factory to build and repair automobiles, engines, tools and appliances. The capital stock is $25,000. W. M. Meyers, L. W. Coppock and H. F. Reynolds are directors.

DETROIT, MICH.—The contract for the erection of the plant of the Penabic Pottery Co., for the manufacture of art crockery and tiles, has been awarded. H. J. Caulkins is at the head of the company.

CHICAGO, ILL.—Myron H. Church, Marquette Bldg., 204 Dearborn St., has let the masonry and cement contracts to the B. H. LICHTER CO., 115 Dearborn St., for a manufacturing plant to be built on about four acres of land at Lumber and Canal Sts., extending to Seward St., for the Heath & Milligan Mfg. Co., paint and color makers, 170 Randolph St. It will be a 4-story reinforced concrete building. Estimated cost, $290,000.

R. T. Newberry, Arch., 184 La Salle St., has awarded to E. SPICERING, 3747 Rhodes Ave., the contract to erect the 1-story, 20 × 500 ft. and 2-story, 70 × 250 ft. building for the American Rolling Mill Co., to be erected at South Robey St., and the Chicago River. Estimated cost, $150,000.

C. A. Eckstrom, Arch., Tacoma Bldg., 131 La Salle St., has prepared plans for a 1-story extension, 53 × 160 ft., to be used for press room, to be built at 1918 and 1920 Indiana Ave., for the Western Bank Note & Engraving Co., on the premises. It will be of fireproof construction, with pressed exterior, having composition roof, and cost about $40,000.

MILWAUKEE, WIS.—Buemming & Dick, Archs., 1107 Pabst Building, will prepare plans for a 7-story factory and warehouse to be erected at Florida and Grove Sts., for William Berger & Co. Estimated cost, $100,000.

MINNEAPOLIS, MINN.—The North Star Shoe Co. is not contemplating the erection of a factory as was reported in issue of Oct. 25.

PYATT, ARK.—The Susquehanna Mining & Milling Co. will erect a mill on a 120-acre tract which is about to be developed, and next year will erect a concentration plant near the White River. John J. Geoghan is Gen. Mgr.

LA JARA, COLO.—A beet sugar factory will be erected at La Jara by E. R. Stark, of Colorado Springs, Colo., in connection with several farmers in this region. Estimated cost, $1,000,000.

BELLINGHAM, WASH.—An overall factory is to be erected here.

EDMONDS, WASH.—The Washington Excelsior Co., of Seattle, has purchased property here and will erect and equip a plant for making excelsior. Company has a capital of $30,000. It is reported that within a year a box and veneering factory will also be installed.

MOSCOW, WASH.—A. M. Anderson & Co. are planning to erect a factory here for the manufacture of threshing machines.

PORTLAND, ORE.—The Hazelwood Creamery Co. has purchased a site at Fourth and Hoyt Sts. and will erect a creamery building at a cost of $100,000. It is to be a 4 or 5-story building.

DURKEE, ORE.—It is reported that Frank Nelson is interested in a plan to erect a large cement plant here, to be operated by electricity.

MONCTON, N. B.—Bids are asked by L. K. Jones, Secy. Dept. Rys. & Canals, Ottawa, Ont., until Dec. 10, for construction of locomotive shops in the yards of the Intercolonial Ry. D. Pottinger is Gen. Mgr.

PORT ARTHUR, ONT.—The ratepayers of Port Arthur have carried two by-laws, one to guarantee the bonds of the Meisel Manufacturing Co. to the extent of $75,000 for establishing a works to manufacture agricultural machinery, and the other to loan the Seamen, Kent Co. $15,000 for a term of ten years to erect a factory to manufacture hardwood housebuilding material.

ANGUS, ONT.—The Canadian Pacific Ry. Co. has plans ready for a paint shop at its shops here to cost $50,000.

GUELPH, ONT.—An Indiana firm is to erect a $50,000 plant at Guelph for the manufacture of brick-making machines.

TORONTO, ONT.—The Polson Iron Works are planning new buildings at a cost of $100,000. The contract for the new $50,000 machine shop has already been let.

FORT WILLIAM, ONT.—The Canadian Iron and Foundry Co. have begun the establishment of a new plant at Fort William, where they expect to employ 200 men. By next June the works are expected to be in operation. They will make a specialty of railway car wheels and castings, and cast iron water and gas pipes, and have a capacity of [illegible] tons a day.

WINNIPEG, MAN.—Eade Bros., architects, Union Bank Bldg., are preparing plans for a foundry and other buildings to be erected in connection with the Western Iron Works. Cost, $75,000. A large quantity of machinery will be required.

LETHBRIDGE, ALTA.—The contract for the branch building of the Medicine Hat Woolen Mills to be erected here has been let to REN VIRTUE. Estimated cost, $25,000.

FERNIE, B. C.—Bids are asked by the Fort Steele Brewing Co. until Dec. 18, for erection of fireproof brewery with a capacity of 30,000 barrels a year.

VANCOUVER, B. C.—SMITH BROS, North Vancouver, have received the contract for the erection of the new car barns for the British Columbia Electric R. R. Co. Estimated cost, $15,000. W. H. Hazlitt is Pur. Agt.

## READERS' WANTS FOR THOSE IN THE MARKET

**The readers of ENGINEERING NEWS are constantly in the market for great quantities of machinery, tools and general supplies. While our thousand advertisers are usually able to furnish the material desired, yet there are many things wanted by our readers that are not advertised, although connected with engineering and contracting directly or indirectly. This department (R-W) is for this class of inquiries, and we urge our readers to keep us informed. Enclose five cents in stamps and we write to a number of leading manufacturers without further cost. When writing to our advertisers, who are the leaders in their respective lines, mention Engineering News. Have you a copy of our Buyers' Guide? Engineering News Can Help Buyers.**

BLUE PRINT MACHINE.—Dallas, Tex.—W. W. Berry, Wilson Bldg., Dallas, Tex., writes us that he desires to purchase a machine for sensitizing blue print paper.

CLAY MIXING MACHINERY.—Portsmouth, Ohio.—S. P. Baird, Engr., desires information regarding a proportional clay mixing device for use in a brick plant.

ASPHALT MACHINERY CATALOGUE.—New York, N. Y.—Charles Meads & Co., 299 Broadway, New York, desires catalogues from firms manufacturing asphalt machinery.

CRUDE OIL BURNERS AND OUTFITS.—Syracuse, N. Y.—William Miller Booth, 712 Dillaye Bldg., Syracuse, N. Y., desires information relative to crude oil burners and outfits.

GLASS MACHINERY.—New York, N. Y.—We are informed that Dr. J. M. Yrigoyen, in care of the Pacific Co., 100 Broadway, New York, desires names of reliable firms making machinery for manufacturing window glass and bottles.

DENATURIZED ALCOHOL.—Hartford City, Ind.—C. B. & R. B. Fulton, Engineers and Contractors, Hartford City, Ind., write us that they desire information relative to the cost of a plant for the manufacture of denaturized alcohol.

DREDGE.—Trujillo, Honduras, C. A.—Morris M. Kearney, Trujillo, Honduras, C. A., writes us that he is desirous of purchasing a small dredge, complete, knocked down, ready for shipment at New York. He states a description of the kind of dredge he desires appeared in our issue No. 20, Vol. XLIX, May 14, 1903.

DROP FORGINGS, WHEELS FOR NARROW GAGE, GENERAL MACHINE STRUCTURE AND FORGE SHOP EQUIPMENTS, ETC.—Pittsburg, Pa.—The Arthur Koppel Company, Pittsburg, writes us that it is desirous of catalogues from reliable concerns making drop forgings, wheels for narrow-gage, general machine structure and forge shop equipments, light rails, with accessories, bolts, nuts, etc.

## MISCELLANEOUS CONTRACTS.

***The names of parties awarded contracts are printed in capital letters.***

SUBWAY.—Winnipeg, Man.—See Bridges.

FIRE-ALARM SYSTEM—Kokomo, Ind.—Bids are asked by the Board of Public Works until Nov. 28, for the construction and installation of an electric telegraph fire-alarm system. J. A. Burkhalter is Chn.

TELEPHONE EXCHANGE.—Edmonton, Alta.—JOHNSON & WARREN have received the contract for the erection of the new municipal telephone exchange. William Morrison will act as outside superintendent, for the stringing of wires, etc.

STEAMER.—Chicago, Ill.—The Canadian Shipbuilding Co., Toronto, has been awarded the contract by the Chicago & St. Lawrence Steam Navigation Co., to build a steel freight steamer 510 feet long, 500 feet on the keel, 56 feet beam and 31 feet deep.

CAISSON, FOUNDATION.—Philadelphia, Pa.—Bids are asked until noon, Dec. 10, for sinking a caisson and erecting the foundation of the light-house at elbow of Cross Ledge, Delaware Bay. Maj. C. A. F. Flagler, Corps Engrs., U. S. A. (Advertised, Engineering News.)

TUNNEL.—Boston, Mass.—We are officially informed that COLEMAN BROS., 15 Court Sq., Boston, on Nov. 8, secured contract, at $14,740, for constructing part of Section 11, Washington St. tunnel. Work is to be completed Jan. 15, 1907. William Jackson is City Engr.

RECONSTRUCTING CRIBS.—Cincinnati, Ohio.—Bids are asked until 1 p. m., Dec. 12, for reconstructing, in concrete, conduit, guide and guard cribs at Lock No. 4, Muskingum River, Ohio. Maj. J. G. Warren, Engrs., 415 Custom-House. (Advertised, Engineering News.)

COAL FIELDS DEVELOPMENT.—Winnipeg., Man., Can.—The Canadian Coal & Coke Co. has decided to spend $2,000,000 in developing its coal fields in the Canadian Northwest. F. E. Kenaston, of Minneapolis, and O. A. Robertson, of St. Paul, are at the head of this company.

CRANE RUNWAY.—Charleston, S. C.—The Bureau of Yards and Docks, Navy Dept., Washington, has awarded to the INTER-STATE ENGINEERING CO., of Bedford, Ohio, contract for the construction of a crane runway, at the Charleston Navy Yard, at its bid of $4,762.

DITCH.—Oakwood, Ill.—Bids are asked until 10 a. m., Nov. 19, by Drainage Commissioners of Feather Creek Union Drainage District, in the towns of Oakwood and Pilot, for construction of a dredge ditch about 10,700 feet long and several other ditches. E. S. Boudinat is Engr.

DRY-DOCK.—Mobile, Ala.—Charles Ollinger and associates have purchased ground at Choctaw Point having a river frontage of 135 ft., and are arranging for the construction of a dry-docking plant with a capacity of 4,000 tons dead weight. It is estimated that about $175,000 will be invested.

STEAMER.—Albany, N. Y.—The Albany & Troy Steamboat Co., Albany, has awarded to TIETJEN & LANG DRY-DOCK CO., Hoboken, N. J., contract for the construction of a three-deck steamer with capacity for 2,000 passengers, for $75,000. Edward A. Beaupre si Vice-Pres. and Genueral Mgr. of the steamboat company.

CEMENT.—Ottawa, Ont.—The Department of Public Works has awarded the contract for the supply of 10,000 bags of cement required for St. Andrew's Rapids to the OWEN SOUND PORTLAND CEMENT CO. at about $2.75 per bbl. Half of thequantity has to be delivered within the next few weeks, the balance next summer.

PAINTING.—New York, N. Y.—Bids are asked until noon, Nov. 23, by J. A. Bensel, Comr. of Docks, Dept of Docks and Ferries, for repairing and docking the municipal ferry boats and all other floating property of the department and furnishing and delivering miscellaneous supplies therefor. Bidsreceived on Nov. 2 were given in issue of Nov. 8.

**RETAINING WALL.—Philadelphia, Pa.—Bids are asked by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., Nov. 24, for constructing a continuation of the retaining wall south of the reserve basin, Navy Yard, League Island,** Pa. Specifications can be seen at the office of Engineering News, New York. Mordecai T. Endicott, Ch. of Bureau.

SUBWAY.—Reading, Pa.—We are officially advised that contract for constructing subway under the Philadelphia & Reading Ry. tracks at Spring St., between Sixth and Eighth Sts., has been awarded to L. H. FOCHT & SON, at $146,053, on Proposition No. 1. This proposition includes granite and block paving only. Elmer H. Beard is City Engr. Charles C. Weltmer is City Clk.

STONE.—Baltimore, Md.—Bids are asked until noon, Nov. 15, for furnishing about 1,700 cu. yds. of riprap stone, and placing it in position around Smith Point Light-House, mouth of the Potomac River, Va., in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to Lieut.-Col. R. L. Hoxie, Engrs., U. S. A.

CANAL WORK.—Portland, Ore.—The Secretary of the Interior has executed a contract with THOMAS JAQUES, of Pilot Rock, Ore., for the construction and completion of about 15 miles of main canal and lateral ditches, Umatilla irrigation project, Ore. The work involves about 165,000 cu. yds. of excavation, and according to the terms of the agreement must be completed May 1, 1907. The amount of the bid was $20,212.50.

CANAL WORK.—Huntley, Mont.—The Secretary of the Interior has granted an extension of time to June 1, 1907, to W. D. Lovell, of Minneapolis, for the completion of his contract for structures under the Huntley irrigation project, Mont. Since the date of making this contract the amount of work required has been greatly increased and the equivalent of the work called for in the contract was completed within the specified time.

CRANE RUNWAYS.—Charleston, S. C.—Following are the lowest bids received Nov. 3, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for crane runways at the construction and repair machine shop, Navy Yard, Charleston, S. C. Specification No. 1513: Item 1, The Interstate Engineering Co., Debford, Ohio, $4,762; Item 2, Belmont Iron Works (only bidder), 22d St. and Washington Ave., Philadelphia, Pa., $5,490.

TUNNEL.—Butte, Mont.—Contract for driving a tunnel through a mountain range south of the Nine Mile house near Butte, Mont., has been let by the Chicago, Milwaukee & St. Paul R. R. Co. to VICTOR NORDBERG, western agent for the Nordberg Machinery Co.; JOHN H. LYNCH, formerly agent for the Rand Drill company, and HUGH McFADDEN, all of Butte. Cost of the works will be $350,000. The contract calls for its completion within a year.

TUNNEL.—Scranton, Pa.—Bids are asked until Nov. 30, for driving a tunnel from Lake Scranton reservoir to a point near the township road in the 19th Ward, Scranton. It will be seven ft. high, nine ft. wide, and about 4,000 ft. long. One or more shafts may be sunk, which will be ten ft. by ten ft. in the clear and about 180 ft. deep. Bidders are requested to state price per lincar yard, each, for tunnel or shafts. W. W. Scranton, Pres. Scranton Gas & Water Co. (Advertised, Engineering News.)

LIGHT VESSEL.—Washington, D. C.—Bids were opened Nov. 10, at the office of the Light House Board, Washington, D. C., for the construction of light vessel No. 88, to be delivered either at Tompkinsville, N. Y., or at Astoria, Ore. Two bids were received: New York Shipbuilding Co., New York, $89,000; Portland Steel Shipbuilding Co., of St. John's, Ore. (formerly Moran Bros. Co., Seattle, Wash.), $135,250. The last-named bid has been rejected as being in excess of the amount ($135,000) for which the board is authorized to contract. The contract has not yet been awarded.

**CEMENT.—Washington, D. C.—Bids were opened Nov. 12, at the office of the Commissioners of the District of Columbia, for furnishing 5,000 bbls. of Portland cement in wood, and 5,000 bbls. in sacks, at the cement warehouse, First and Canal Streets, Washington. Bids were as follows: Grove Lime & Coal Co., Washington, wood, $1.87; sacks, $1.90. National Mortar Co., 612 F St. N. W., Washington, wood, $1.82; sacks, $1.87. Atlas Portland Cement Co., New York, wood, $1.80; sacks, $1.85. T. Edmund Clark, 1305** New Jersey Ave., Washington, wood, $1.93; sacks, $1.98. Lehigh Portland Cement Co., $1.79, wood; $1.84, cement.

LIGHT-VESSELS.—Washington, D. C.—No bids were received at the Light-House Board, Washington, Nov. 3, for the construction and delivery of one single-screw steel steam light-house tender, one twin-screw steel steam light-house tender for the 11th light-house district. The reason assigned for this by the Board is that the cost of labor and materials has increased so enormously since the making of the estimates upon which the appropriation was made, that it is impossible for shipbuilders to build the vessels within the amounts appropriated. It is probable that new plans and specifications will be prepared upon cheaper lines in order to come within the appropriation.

LEVEE.—New Orleans, La.—The State Board of Engineers has awarded the following contracts for levee work in different sections of the State: Hope levee, parish of St. John, Pontchartrain Levee district, 100,000 cu. yds. of earthwork, to R. T. CLARKE, at 21.45 cts. a cu. yd.; Lower ¼rand Prairie levee, parish of Plaquemines, Grand Prairie Levee district, 10,000 cu. yds., to MIKE CULLEN, at 21 cts. a cu. yd.; Gold Point to Cash Point levee, Caddo parish, Caddo Levee district, 85,000 cu. yds., to MIKE HUNT, at 19.84 cts. a cu. yd.; Chalk Level levee, Bossier parish, Bossier Levee district, 20,000 cu. yds., to BURT CONSTRUCTION CO., at 15.60 cts. per cu. yd.

MINE SHAFTS, OVENS, ETC.—Khedive, Pa.—A press report states that a $2,000,000 contract was let by the Brier Hill Coal & Coke Co., composed chiefly of Pittsburg capitalists, to the HITCHCOCK & ANDREWS IRON AND STEEL CO., and the YOUNGSTOWN SHEET & TUBE CO., both of Youngstown, Ohio, for the sinking of four mine shafts and the construction of 1,000 ovens at Khedive, on the line of the proposed Uniontown & Wheeling Short Line, which will be a part of the extension of the Wabash to be built from Cumberland to Wheeling. This contract means that the work of building the road will commence within the next few months. The Brier Hill Company recently secured 4 000 acres of coal lands from Josiah V. Thompson, of Uniontown, Pa. Thompson turned over the Uniontown and Wheeling Short Line to the Wabash interests. The cost of the ovens, exclusive of the sinking of the four shafts, will be more than $1,000,000.

CANAL WORK.—Albany, N. Y.—The following bids were received by N. V. V. Franchot, Supt. Public Works, Albany, on Nov. 9, for Barge Canal Contract No. 25, Champlain Canal, which is for excavating the canal and protecting its sides, constructing locks No. 9 and No. 10, necessary spillways, power plants and appertaining structures, bridge substructures and approaches, retaining walls, roads and other incidental details, between Sta. 356, about 0.6 mile north of Comstock P. O., and Sta. 1041 + 54 at Dunham's Basin Road. Length of contract, 13 miles: Atlantic, Gulf & Pacific Co., Park Row Bldg., New York, $1,754,236; Butler Brothers-Hoff Co., 1170 Broadway, New York, $1,831,318.80; Kinser Construction Co., 1609 Railway Exchange, Chicago, Ill., $1,754,571. The Engineer's estimate is $1,849,831.

Five bids were received for Barge Canal Contract No. 27, Champlain Canal, which is for excavating the canal and protecting its sides; constructing locks No. 7, No. 8 and Junction Lock, necessary spillways, power plants and appertaining structures; a concrete arch bridge, bridge substructures and approaches, retaining walls, highways and other incidental details, between Station 1046 + 16, the south end of Contract No. 25, at Dunham's Basin Road, and the Hudson River at Fort Edward, Station 1245. Length of contract, 3.76 miles. They were: Atlantic, Gulf & Pacific Co., $1,041,260; Butler Brothers-Hoff Co., $1,051,597; D. D. Streeter, Kalamazoo, Mich., $1,148,869; Kinser Construction Co., $972,210; and Buffalo Dredging Co., Buffalo, N. Y., $1,098,344.50. The Engineer's estimate is $998,920. The award of Contract No. 25 to the Atlantic, Gulf & Pacific Co. and of Contract No. 27 to the Kinser Construction Co. probably will be made within a few days.

Three bids were received by N. V. V. Franchot, Supt. Public Works, for Barge Canal Contract No. 19, which includes the work of excavating the canal and protecting its sides, rebuilding bridges, constructing a masonry culvert, concrete-capped pile docking and other incidental details between the guard lock at Sulphur Springs, Station 6148, and the mouth of Ellicott Creek, Station 6806. Length of contract, 12.46 miles. Engineer's estimate is $1,038,245. The bids were: Kinser Construction Co., $1,286,685; Great Lakes Construction Co., Chamber of Commerce Bldg., Buffalo, N. Y., $1,002,170.75; Buffalo Dredging Co., Buffalo, N. Y., $1,631,532.60.

One bid was received for Contract No. 26, being the work of dredging a channel in the Hudson River between the south end of Contract No. 27, Station 1245, at Fort Edward, and the north end of Contract No. 1, Station 1286 + 33. Length of contract, 0.76 miles. Engineer's estimate is $51,625. The bidder was J. W. Cronin, 571 South Clinton St., Syracuse, N. Y., in amount $65,380. The specifications included 172,000 cu. yds., all excavation, for which 38 cents per cu. yd. was bid as against the engineer's estimate of 30 cents per cu. yd. Itemized prices for these contracts are given under Contract Prices on pages 173 and 174.

## CONTRACT PRICES.

**(Where (*) precedes items under Contract Prices the work was advertised in Engineering News.)**

*CANAL WORK.—Albany, N. Y.—The names of bidders and itemized prices of bids received by N. V. V. Franchot, Supt. Public Works, Albany, for Barge Canal Contract No. 25, Champlain Canal, are as follows: (1) Engineer's estimate; (2) Atlantic, Gulf & Pacific Co., Park Row Bldg., New York; (3) Butler Bros.-Hoff Co., 1170 Broadway, New York; (4) Kinser Construction Co., 1009 Railway Exchange, Chicago, Ill.:

BIDS RECEIVED ON NOV. 9 FOR BARGE CANAL CONTRACT NO. 25, ALBANY, N. Y.

| | | (1) | (2) | (3) | (4) |
|---|---|---|---|---|---|
| | Clearing, lump sum | $1,400.00 | $1,400.00 | $1,400.00 | $1,400.00 |
| 38,000 | cu. yds., grubbing | .30 | .30 | .35 | .30 |
| 4,765,000 | cu. yds., all excavation | .24 | .23 | .23 | .22 |
| 410,000 | cu. yds., embankment | .15 | .10 | .15 | .15 |
| 14,500 | cu. yds., lining | 1.50 | 1.50 | 1.75 | 1.50 |
| 40,000 | sq. ft., channeling | .15 | .15 | .18 | .15 |
| 57 | M. B. M. sheeting and piling | 35.00 | 35.00 | 42.00 | 35.00 |
| 340 | M. B. M. sawed lumber (hemlock) | 35.00 | 35.00 | 42.00 | 35.00 |
| 6 | M. B. M. sawed lumber (spruce) | 35.00 | 35.00 | 42.00 | 35.00 |
| 37 | M. B. M. sawed lumber (yellow pine or Douglas fir) | 45.00 | 45.00 | 54.00 | 45.00 |
| 4 | M. B. M. white oak in miter sills | 100.00 | 100.00 | 100.00 | 100.00 |
| 1,800 | piles, 6′ long | 1.50 | 1.00 | 1.80 | 1.50 |
| 400 | piles, 8′ long | 2.00 | 2.00 | 2.40 | 2.00 |
| 80 | piles, 10′ long | 2.50 | 2.50 | 3.00 | 2.50 |
| 3,600 | piles, 12′ long | 3.00 | 3.00 | 3.60 | 3.00 |
| 1,100 | piles, 15′ long | 3.75 | 3.75 | 4.50 | 3.75 |
| 1,750 | piles, 16′ long | 4.00 | 4.00 | 4.80 | 4.00 |
| 320 | piles, 18′ long | 4.50 | 4.50 | 5.40 | 4.50 |
| 3,550 | piles, 20′ long | 5.00 | 5.00 | 6.00 | 5.00 |
| 43,000 | lin. ft. round timber | .10 | .12 | .12 | .10 |
| 1,907 | M. B. M. sheet piling | 35.00 | 35.00 | 42.00 | 35.00 |
| 15 | cu. yds. stone coping, 1st class | 20.00 | 20.00 | 20.00 | 20.00 |
| 43,700 | cu. yds. concrete, 2d class | 6.00 | 5.75 | 5.90 | 6.00 |
| 1 760 | cu. yds. concrete (reinforced) | 10.00 | 10.00 | 10.00 | 10.00 |
| 75 000 | cu. yds. wash wall | 2.00 | 1.80 | 2.00 | 2.00 |
| 2,700 | cu. yds. riprap, 3d class | 2.00 | 2.00 | 2.00 | 2.00 |
| 800 | sq. yds. paving, 2d class | 1.00 | 1.00 | 1.20 | 1.00 |
| 136 | cu. yds. ballast | 1.50 | 1.50 | 1.80 | 1.50 |
| 164,500 | lbs. iron castings | .03 | .03 | .03 | .03 |
| 18,000 | lbs. iron castings (machined) | .06 | .06 | .06 | .06 |
| 227,000 | lbs. metal reinforcement | .04 | .04 | .04 | .04 |
| 294,000 | lbs. structural steel | .05 | .05 | .05 | .05 |
| 52 | lin. ft. pipe railing (wrought iron) | 1.00 | 1.00 | 1.00 | 1.00 |
| 5,900 | lin. ft. wooden fence | .20 | .20 | .24 | .20 |
| | **Maintaining traffic, lump sum** | 3,600.00 | 3,600.00 | 3,600.00 | 3,600.00 |
| | **Removal of old superstructures, lump sum** | 600.00 | 600.00 | 600.00 | 600.00 |
| | **Contractor will give for buildings in place, the sum of** | 3,600.00 | 3,600.00 | 3,600.00 | 3,600.00 |
| | **Total** | $1,849,831 | $1,754,236 | $1,831,819 | $1,754,571 |

*CANAL WORK.—Albany, N. Y.—The names of bidders and itemized prices of bids received Nov. 9 by N. V. V. Franchot, Supt. Public Works, Albany, for Barge Canal Contract No. 27, Champlain Canal, are as follows; (A) Engineer's estimate; (B) Atlantic, Gulf & Pacific Co., Park Row Bldg., New York; (C) Butler Bros.-Hoff Co., 1170 Broadway, New York; (D) D. D. Streeter, Kalamazoo, Mich.; (E) Kinser Construction Co., 1609 Railway Exchange, Chicago, Ill.; (F) Buffalo Dredging Co., Buffalo, N. Y.:

BIDS RECEIVED ON NOV. 9 FOR BARGE CANAL CONTRACT NO. 27, ALBANY, N. Y.

| | (A) | (B) | (C) | (D) | (E) | (F) |
|---|---|---|---|---|---|---|
| Clearing, lump sum | $825.00 | $825.00 | $800.00 | $825.00 | $825.00 | $825.00 |
| 12,390 cu. yds. grubbing | .30 | .30 | .35 | .30 | .30 | .36 |
| 1,410,000 cu. yds. all excavation | .30 | .33 | .30 | .34½ | .26 | .36 |
| 20 M. B. M. sheeting and bracing | 40.00 | 40.00 | 48.00 | 48.00 | 40.00 | 40.00 |
| 215,500 cu. yds. forming embankment | .15 | .15 | .15 | .15 | .15 | .17 |
| 4,700 cu. yds. gravel lining | 1.50 | 1.50 | 1.75 | 1.60 | 1.50 | 1.50 |
| 56 M. B. M. sawed lumber, yellow pine or Douglas fir | 50.00 | 50.00 | 60.00 | 55.00 | 50.00 | 50.00 |
| 33 M. B. M. sawed lumber, hemlock | 35.00 | 35.00 | 42.00 | 38.00 | 35.00 | 35.00 |
| 7 M. B. M. yellow pine in lock gates | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 5 M. B. M. white oak | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 |
| 4,700 lin. ft. round timber | .10 | .10 | .12 | .15 | .10 | .12 |
| 220 foundation piles 12′ long | 3.00 | 3.00 | 3.60 | 3.60 | 3.00 | 3.00 |
| 2,540 foundation piles 15′ long | 3.75 | 3.75 | 4.50 | 4.50 | 3.75 | 3.75 |
| 200 foundation piles 16′ long | 4.00 | 4.00 | 4.80 | 4.80 | 4.00 | 4.00 |
| 6,140 foundation piles 20′ long | 5.00 | 5.00 | 6.00 | 6.00 | 5.00 | 5.00 |
| 980 foundation piles 24′ long | 6.00 | 6.00 | 7.20 | 7.20 | 6.00 | 6.00 |
| 720 M. B. M. sheet piling | 40.00 | 40.00 | 48.00 | 45.50 | 40.00 | 40.00 |
| 70 lin. ft. wrought-iron pipe railing | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.50 |
| 59,300 cu. yds. second-class concrete | 6.00 | 6.00 | 6.40 | 7.00 | 6.50 | 6.00 |
| 1,700 cu. yds. reinforced concrete | 10.00 | 10.00 | 10.50 | 11.00 | 10.00 | 10.00 |
| 193,000 lbs. metal reinforcement | .04 | .04 | .04 | .04 | .04 | .03½ |
| 9 cu. yds. masonry bridge coping | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 24,300 cu. yds. wash wall | 2.00 | 2.00 | 2.40 | 2.25 | 2.00 | 2.40 |
| 500 sq. yds. second-class stone paving | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 |
| 230 cu. yds. third-class riprap | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 20 cu. yds. fourth-class riprap | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| 6,600 lin. ft. wooden fencing | .20 | .20 | .24 | .22 | .20 | .20 |
| 141,500 lbs. structural steel | .05 | .05 | .05 | .06 | .05 | .05½ |
| 146,000 lbs. iron castings | .03 | .03 | .03 | .05 | .03 | .03 |
| 14,500 lbs. iron castings (machined) | .06 | .06 | .06 | .08 | .06 | .07 |
| 3 sluice gates complete with hoists and standards, each | 500.00 | 500.00 | 500.00 | 600.00 | 500.00 | 500.00 |
| For lowering Argyle St. bridge superstructure, lump sum | 200.00 | 200.00 | 200.00 | 200.00 | 200.00 | 200.00 |
| For removing old bridge superstructures, lump sum | 200.00 | 200.00 | 200.00 | 200.00 | 200.00 | 200.00 |
| For maintaining traffic, lump sum | 3,000.00 | 3,000.00 | 3,000.00 | 3,000.00 | 3,000.00 | 3,000.00 |
| Contractor will give for buildings in place, removing the same from off the contract site and abating all nuisances without expense to the State, the sum of | 10.00 | 10.00 | 10.00 | 500.00 | 10.00 | 10.00 |
| Total | $998,920 | $1,041,260 | $1,051,597 | $1,148,869 | $972,210 | $1,098,344 |

*CANAL WORK.—Albany, N. Y.—Bids and itemized prices received on Nov. 9 by N. V. V. Franchot, Supt. Public Works, for Barge Canal Contract No. 19, were as follows: (A) Engineer's estimate; (B) Kinser Construction Co., Chicago, Ill.; (C) Great Lakes Construction Co., Buffalo, N. Y.; (D) Buffalo Dredging Co., Buffalo, N. Y.:

BIDS RECEIVED ON NOV. 9 FOR BARGE CANAL CONTRACT NO. 19, ALBANY, N. Y.

| | (A) | (B) | (C) | (D) |
|---|---|---|---|---|
| 240,000 cu. yds. all excavation from guard lock to Sta. 6180 | $0.60 | $0.60 | $0.60 | $0.58 |
| 2,842,000 cu. yds. all excavation from Sta. 6180 to Tonawanda | .18 | .25 | .17½ | .37 |
| 20 M. B. M. sheeting and bracing | 35.00 | 35.00 | 32.00 | 35.00 |
| 29,000 cu. yds. forming embankment | .15 | .15 | .14 | .15 |
| 2,200 cu. yds. lining | 1.50 | 1.50 | 1.25 | 1.65 |
| 53 M. B. M. sawed lumber, Douglas fir or yellow pine | 50.00 | 50.00 | 45.00 | 50.00 |
| 355 M. B. M. sawed lumber, hemlock | 30.00 | 30.00 | 30.00 | 30.00 |
| 4,000 lin ft. round timber in cribs | .15 | .15 | .15 | .25 |
| 850 cu. yds. stone filling for cribs | 1.50 | 1.50 | .90 | 1.50 |
| 10,000 foundation piles, 15′ long | 3.75 | 3.75 | 3.60 | 3.75 |
| 1,500 foundation piles, 18′ long | 4.50 | 4.50 | 4.32 | 4.50 |
| 830 foundation piles, 20′ long | 5.00 | 5.00 | 4.80 | 5.00 |
| 40 fender piles, 30′ long | 9.00 | 9.00 | 9.00 | 9.00 |
| 2,150 M. B. M. sheet piling | 35.00 | 35.00 | 35.00 | 40.00 |
| 520 lin. ft. wrought iron pipe railing | 1.50 | 1.50 | 1.50 | 1.50 |
| 7,400 cu. yds. 2d class concrete | 7.00 | 7.00 | 6.40 | 7.00 |
| 400 cu. yds. reinforced concrete | 12.00 | 12.00 | 12.00 | 12.00 |
| 75,500 lbs. metal reinforcement | .04 | .04 | .03¼ | .04 |
| 100 cu. yds. masonry to be relaid | 5.00 | 5.00 | 4.00 | 5.00 |
| 6 cu. yds. 1st class masonry coping | 30.00 | 30.00 | 30.00 | 30.00 |
| 99,000 cu. yds. wash wall | 1.50 | 2.00 | 1.35 | 1.90 |
| 1,900 sq. yds. 3d class stone paving | 2.00 | 2.00 | 2.00 | 2.25 |
| 360 cu. yds. 3d class riprap | 2.00 | 2.00 | 2.00 | 2.00 |
| 600 cu. yds. 4th class riprap | 1.50 | 1.50 | 1.25 | 1.50 |
| 95 sq. yds. cobblestone paving | 1.00 | 1.00 | 1.00 | 1.00 |
| 1,500 lin. ft. wooden fencing | .20 | .20 | .20 | .20 |
| 326,000 lbs. structural steel | .05 | .05 | .04¾ | .06 |
| 22,000 lbs. iron castings | .03½ | .03½ | .03¼ | .03½ |
| 350 sq. yds. paved gutter | 1.00 | 1.00 | 1.00 | 1.50 |
| 870 sq. ft. flagstone crosswalk | 50 | .50 | .40 | .75 |
| Removing bridge superstructures, lump sum | 300.00 | 300.00 | 480.00 | 300.00 |
| Raising bridge superstructures, lump sum | 3,000.00 | 3,000.00 | 4,500.00 | 4,000.00 |
| Maintaining traffic, lump sum | 500.00 | 500.00 | 580.00 | 1,500.00 |
| Deduct price to be paid to the State of New York by the contractor for buildings in place, lump sum | 1,900.00 | 1,900.00 | 950.00 | 1,000.00 |
| Totals | $1,038,245 | $1,286,685 | $1,002,171 | $1,631,532 |

SEWERS, PAVING.—Mobile, Ala.—Bids were received on Nov. 8 by the Board of Public Works, for constructing storm sewers, and for paving with bitulithic and wood block pavements. Itemized bids were as follows; (A) Jett Bros. Construction Co., Mobile; (B) Sullivan & Long, Bessemer, Ala.; (C) SOUTHERN BITULITHIC CO., Nashville, Tenn. (awarded contract):

| Storm sewers: | (A) | (B) | (C) |
|---|---|---|---|
| 60′ concrete culvert, complete | $900.00 | $1,200.00 | $660.00 |
| 100′ concrete culvert, complete | 1,200.00 | 1,250.00 | 640.00 |
| 4,470 lin. ft. 30″ pipe sewer | 4.13 | 4.20 | 3.00 |
| 3,950 lin. ft. 27″ pipe sewer | 3.39 | 3.65 | 2.50 |
| 4,525 lin. ft. 24″ pipe sewer | 2.61 | 2.90 | 2.15 |
| 1,390 lin. ft. 20″ pipe sewer | 1.84 | 2.20 | 1.65 |
| 2,020 lin. ft. 18″ pipe sewer | 1.53 | 1.85 | 1.35 |
| 2,855 lin. ft. 15″ pipe sewer | 1.08 | 1.50 | 1.05 |
| 1,915 lin. ft. 12″ pipe sewer | .73 | 1.00 | .85 |
| 900 lin. ft. 10″ pipe sewer | .51 | .75 | .75 |
| 10,000 lin. ft. 6″ house connections | .25 | .25 | .55 |
| 60 standard manholes | 51.50 | 45.00 | 25.00 |
| 71 standard inlets | 31.00 | 25.00 | 25.00 |
| 33 special catch-basins | 53.00 | 25.00 | 20.00 |
| 100 cu. yds. extra concrete | 7.00 | 7.50 | 6.00 |
| 10,000′ B. M. extra lumber | 31.00 | 22.00 | 28.00 |
| Total | $66,900 | $71,201 | $54,950 |

Combined curb and gutter: 17,164 lin. ft.—The West Construction Co., Chattanooga, Tenn., 56¼ cts. a lin. ft.; total, $9,654.75; G. W. Graham, Freeport, Ill., 51 cts., $8,753.64; J. C. Everroad, Columbus, Ind., 47 cts., $8,067.08; Brandon & Son, Mobile, Ala., 68 cts.; $11,671.52; Gilsonite Construction Co., St. Louis, Mo., 58½ cts., $10,040.94; SOUTHERN BITULITHIC CO., Nashville, Tenn. 45 cts., $7,723.80 (awarded contract).

Bitulithic pavement: The Southern Bitulithic Co., Nashville, Tenn., 40,670 sq. yds. 4-in. concrete foundation, at 50 cts. a sq. yd., total $20,335; 40,670 sq. yds. 2-in. bitulithic surface, at $1.65, total, $67,105.50; grand total, $87,440.50. Bid by NATIONAL BITUMEN CO. to lay 40,670 sq. yds. bitumineral, including foundation and grading, $2.10, $85,407 (awarded contract). Bid by Republic Creosoting Co., to furnish 11,080 sq. yds. 3½-in. blocks, at $1.50 per yd.; or to furnish 11,080 sq. yds. 3-in. blocks, at $1.30 per yd.

## U. S. POSSESSIONS AND CUBA.

*The names of parties awarded contracts are printed in capital letters.*

STAND-PIPE.—Guantanamo, Cuba.—Bids are asked at the office of the Bureau of Equipment, Navy Dept., Washington, D. C., until Dec. 19, for the construction of a steel stand-pipe with necessary pipe and fittings at the U. S. Naval Coal Depot, Hospital Cay, Guantanamo, Cuba.

COAL-HANDLING PLANT.—Guantanamo, Cuba.—The Bureau of Equipment, Navy Dept., Washington, D. C., has awarded to the ROBBINS BELT CONVEYING CO., New York, contract for installing a coal-handling plant at Hospital Cay, U. S. Naval Station, Guantanamo, uba, at $67,800.

ENGINEERING SUPPLIES. — Panama. — Circular No. 340, just issued by the Gen. Purchasing Officer, Isthmian Canal Commission, Washington, D. C., calls for the following supplies of interest to engineers: 100 made-up locomotive springs; 94 coil springs; journal bearings, push cars, hand cars, trucks, jacks, chain blocks, track tools, grindstones, wheelbarrows, crucibles, spikes, screws, rivets, nuts, bolts, nails, stocks and dies, valves, pulleys, steel, iron, chain, paints, oils, etc. Bids will be received until 10.30 a. m. Nov. 30.

ENGINEERING SUPPLIES. — Panama. — Requisitions have been received at the Isthmian Canal Commission, Washington, D. C., for a quantity of engineering supplies, as follows: 26,000 ft. standard cast-iron pipe and fittings, from 4-in. to 16-in. pipe 30,000 ft. vitrified sewer pipe and fittings; 45 steam churn drills; 1,000 ft. extra rubber belting; 25 air hammer rock drills, 1⅜-in.; 50 3⅝-in. diameter cylinder rock drills, with air heads; 25 2¼-in. diameter cylinder steam rock drills; each order of drills to be accompanied with a full set of duplicate spare parts; 400 pieces of steam and air hose in 25-ft. lengths, 1-in. and ½-in. sizes; three engines for running steam drills. Specifications for this material are being prepared and will be issued in a few days.

## MEXICO.

*The names of parties awarded contracts are printed in capital letters.*

BRICK FACTORY.—Torreon.—Coahuila H. Schoffield, of Torreon, contemplates erecting a brick factory in that city.

DAM.—Durango.—A large dam is to be built on the Hacienda Guatimape, owned by Juan Lozaya, in the State of Durango, for irrigating purposes and power.

BREWERY.—Toluca.—The sum of $300,000 is to be expended in enlarging the capacity of the Toluca & Mexico Brewery, in the city of Toluca, state of Mexico.

TELEPHONE LINES.—Jalapa.—The system of telephone lines which are owned by the state of Vera Cruz are to be extended to connect Jalapa, Orizaba, Vera Cruz and Cordoba.

CEMENT FACTORY. — Hidalgo, Nuevo Leon.—The large cement manufacturing plant which is being constructed here by the Compania de Cementos de Hidalgo, S. A., will be completed and placed in operation about Feb. 1, 1907.

SEWERAGE. — Mazatlan, Sinaloa. — S. PEARSON & SON, LTD., have contracted for the sewerage of the city of Mazatlan, state of Sinaloa. The contract price is about $750,000. John H. Body, Puente de Alvarado, No. 15, City of Mexico, represents the contractors.

RAILROAD SHOPS.—Mexico City.—The National R. R. Co. of Mexico is said to be preparing to remove its general shops from Laredo, Tex., to Nuevo Laredo, Mexico, and San Luis Potosi, Mexico. Repair shops will be retained at Laredo, it is said. Fount Rice, Jr., is Supt., Laredo, Tex.

STAMP MILL.—San Leandres del Rio, Chihuahua.—The Lluva de Oro Mining Co. will construct a 100-stamp mill at its mine, situated near here. A 4[illegible] cyanide plant in being built at the mine [illegible] handle tailings. James Campbell, of St. L[illegible] Mo., is Pres. and managing director of [illegible] company.

BRIDGES.—Chihuahua.—[illegible] Kansas City Mexico & Orient Ry. Co. [illegible] decided to put in a steel bridge of ten spans near Aldama, Chihuahua. Also [illegible] 250-ft. steel bridge across the Arroyo de [illegible]dalupe near San Sostenes. A bridge [illegible] long will be erected over the Conch[illegible]iver.

RESERVOIR. — Torreon. — [illegible] Compania Industrial Jabonera de la [illegible]una, S. A., whose soap manufacturing [illegible] is situated six miles from Torreon, is [illegible]ing to construct a reservoir with a [illegible]ity of 2,000,000 gallons. It will also [illegible] in a number of gas producers in order [illegible] economize on fuel. Juan Brittingham [illegible] Mgr.

RAILROAD.—Juarez, Chih[illegible].—It is reported that the Rio Grande [illegible]rra Madre & Pacific R. R. Co., which [illegible]s general offices at Juarez, has been a[illegible]d by the Rock Island-Frisco interests, [illegible] that it will be extended from Terra[illegible]its present southwestern terminus, to the [illegible] of Topolobampo, on the Pacific co[illegible]f Mexico. The present line is 156 miles [illegible]g.

WATER-WORKS AND SEW[illegible] SYSTEMS.—Progreso, Yucatan.—The G[illegible]nment of this state has under conside[illegible]n a proposition submitted by Thoma[illegible] Lewis, an American engineer, for constru[illegible]n of complete water-works and sewer sy[illegible]ms for the city of Progreso. It is stated [illegible] the proposition probably will be acce[illegible]d by the State Government.

IRRIGATION RESERVOIR. — Torreon.— The planters of the Laguna distr[illegible] will hold a meeting on Nov. 20 to consid[illegible] plans for constructing an irrigation reser[illegible]r. A dam will be built across the Nazas River at some point close to the Fernandez Canyon, and a system of canals and ditches constructed with the view to irrigating many thousand acres of land. Juan Degollado, of Torreon, is interested.

RAILROAD. — Temosachic, Chihuahua.— The Sierra Madre Land & Lumber Co. will build a railroad from Temosachic to the company's lands, 50 miles distant. The proposed line will connect with the Chihuahua & Pacific R. R. at Temosachic. Arrangements for issuing $3,000,000 of bonds for building the road and to erect saw mills have been made. Col. W. C. Greene, of New York, is at the head of the company.

RAILROAD. — Coatzacoalcos. — It is authoritatively announced that the opening of the National Tehuantepec Railroad to trans-isthmus traffic will not take place until about Jan. 1. All of the rolling stock of the road has arrived and will be placed in service when the work of rebuilding and improvement is finished. The work of dredging the harbor at Coatzacoalcos so as to permit the entrance of ocean-going vessels will be finished the early part of December.

ELECTRIC RAILWAY. — Guadalajara. — The construction of the electric railway for the Compania Industrial Jalisciense of Guadalajara, the contract for which was recently let, will be commenced as soon as the preliminary details can be arranged. GEORGE ULRICH has the contract. The proposed line will traverse a number of streets of the city and will connect with a number of factories. B. Targa is Electrical Engr. for the company.

SUGAR FACTORIES.—Mexico City.—The building of three large beet sugar factories in Mexico is being planned. Fenochio & Co., who obtained a concession from the Federal Government recently for the purpose, have deposited $5,000 in the national treasury as a guarantee that they will carry out the terms of the concession. It is stated that one of the factories will be located in Mexico City and the other two in parts of the republic where the sugar beet can be successfully cultivated.

MINING MACHINERY.—Etzetlan, Jalisco. —The Amparo Mining Co., of Etzelan, State of Jalisco, has contracted with THE POWER & MINING MACHINERY CO., of Milwaukee, Wis., for machinery for the proposed reduction plant on the Embocada ranch. The plans call for 80 stamps, but only 40 stamps will be installed at this time. In addition to the stamps there will be concentrating tables and steel cyanide tanks. An aerial tramway, 5,000 ft. in length, will be used in transporting ore from the mine to the mill. Ferdinand Sustersic is Gen. Mgr. of the Amparo Mining Co.

IRRIGATION AND DRAINAGE SYSTEM.— Mexico City.—The Hydrographic Department of the Federal Government has completed the plans for the extensive work that is to be done at Lake Texoco, with the view of conserving the water which runs into that basin during the rainy season and which frequently threatens this city. A number of mountain streams and arroyas run into Lake Texoco and the plans are made to use this water for irrigation purposes. A large canal and numerous lateral ditches will be dug. Locks will be built along the main canal to hold the water above until it has been allowed time to flow off below. The walls of the canal and locks will be constructed of cement. Iron will be used in constructing the locks and gates. Alvarez del Castillo, Engr., will have charge of the construction work.

## FOREIGN CONTRACTS.

*The names of parties awarded contracts are printed in capital letters.*

TELEPHONE MATERIAL. —Australia.— The Postmaster-General, Adelaide, Australia, will receive bids until Dec. 19. for 24 cable terminals for 13 pair cables, 12 cable terminals for 26 pair cables, 12 cable terminals for 52 pair cables, 6 combined cable terminal and junction boxes for 104 pair cables with 52 pairs of terminals, 6 combined cable terminal and junction boxes for 52 pair cables with 26 pairs of terminals

BUILDING CONSTRUCTION.—Italy.—The Municipality of Turin is about to contract a loan of 20,000,000 lire (about $4,000,000) to be expended on various municipal improvements.

BREAKWATER.—Japan.—The Municipality of Yokosuka has under contemplation the construction of breakwaters in the barbor at a cost of about 100,000 yen (about $50,000), for the purpose of facilitating the shipping traffic.

WATER SUPPLY.—Corea.—The Japanese settlement at Fusan has decided to obtain a water supply. For that purpose a sum of 1,170 yen ($575,000) isc to beraised abroad through the agency of the Industrial Bank. The enterprise will be jointly undertaken by the municipality and the Corean Government.

RAILWAY.—Bulgaria.—Bids are asked until 10 a. m. Nov. 19, by the Bulgarian Direction of Railways and Ports for the construction of a railway from Borouchitza to Toulovo and Stara-Zagora, about 57½ kilometers in length. A deposit of 630,000 francs (about $130,000) is required. Sealed bids must bear the inscription "Offre pour la construction de la ligne de chemin de fer Borouchitza-Toulovo-Stara-Zagora."

CONSTRUCTION WORKS.—Germany, Russia.—According to the London Times the execution of the following works has been agreed upon, the amounts voted, and it is expected bids will be called shortly: (1) $600,000 for a physical laboratory and $500,000 for a gun range at Essen, Germany, by the Krupp Works (2) $11,000,000 by Russian Government for harbor works at St. Petersburg and deepening of St. Petersburg-Cronstadt Canal.

PORT WORKS, ETC.—France.—At Nemours the Council-General of Ways and Harbors has under consideration the expenditure of about $400,000 on the construction of a port. The sum of $200,000 has been asked for for harbor improvements at Arzew. Works are in progress at Bône which will attain a total cost of $1,500,000, the works for the new phosphate quay and the making of a new quay at the mouth of the Seybouse having been decided upon.

RAILWAY.—Belgium.—Bids are asked until Dec. 11, at office of the "Societe" at 14 Rue de la Science, Brussels, for the construction of the section from Comblain-la-Tour to Ferrieres of the Comblain-la-Tour—Manhay—Melreux local railway. The estimated cost of the works is 445,260 frs. ($89,000), and a deposit of 44,000 fr. ($8,800) is required to qualify any bid. A copy of the specifications may be obtained on payment of 1 fr. from M. L'Hoir, rue Edouard-Wacken, No. 10, Liege, after Nov. 14.

RAILWAY.—Cape Colony.—The Municipality of Walmer has been authorized to conclude a certain contract of guarantee with the Government in connection with the construction, equipment, working and maintenance of a central line of railway "from a point on the existing Government Railway, known as the Port Elizabeth-Avontuur Railway, in the neighborhood of the town of Walmer to a terminus to be fixed by the Government, at a point on the commonage of Walmer."

METALLIC SHED CONSTRUCTION.—Belgium.—The Municipal authorities of Antwerp invite bids for the construction of a metallic shed at the "Guillaume Dock" to replace the existing wood structure. The estimated cost of the work is $97,200 frs. ($19,000).

The specification (Cahier des Charges, No. 1,169) relating to the contract may be obtained, price 1 fr., from the Hôtel de Ville, Antwerp.

Bids should be sent in sealed registered envelopes, addressed "A Monsieur le Bourgmestre de la Ville d'Anvers," and should reach the Hôtel de Ville not later than Nov. 28. A deposit of 5,000 frs ($1,000) is required to qualify any bid.

COLLIERY, LIGHTING, STEEL PIPE, ETC.—According to South African Export Gazette, machinery orders for following may soon be placed: (1) Extensive orders for new plant for the Crown Colliery, Newcastle, Natal, which has been closed down since last January, may be anticipated. (2) Orders for private and street lighting material for a plan involving the expenditure of $37,812 will shortly be placed for the Johannesburg municipality. (3) The Cape government will probably be in the market shortly for electric lighting plant and material for a $287,000 plan. (4) The Kingwilliamstown Municipality invite bids for the supply of 6¼ miles of 15-inch internal diameter steel pipes, eight sluice valves, eight scour boxes, eight latch boxes; also special fittings, of both lead and iron, for the Perie water supply.

PORT WORKS AND COAST LIGHTING.—Italy.—The Commission appointed to report on Italian ports has submitted to the Minister of Public Works a scheme for the improvement of nearly 100 ports, and of the lights on the coast during the years 1907-17. A detailed estimate has been prepared of the cost of each improvement proposed, the total expenditure being placed at about 180,000,000 lire ($36,000,000.) The estimate does not include the cost of railway extension which will be needed at some ports. A considerable portion of the sums voted in previous years for extraordinary expenditure on port works still remains to be disbursed; if the proposals of the Commission are sanctioned, the total expenditure on these works during the next ten years will amount to about 250,000,000 lire ($50,000,000).

RAILWAYS.—Manchuria.—The Japanese authorities hope to have the railway from Chong-tu-fu to Kwungchentze to connect with that part of the Chinese Eastern Railway under Russian control in northern Manchuria, repaired, remodeled, and in readiness to be operated in harmony with the narrower gauge lines of the same original system now under Japanese control in southern Manchuria during the latter part of September or early in October next. The arrangements for Russian and Japanese railway stations at Kwungchentze have not been announced, but it is anticipated that in addition to having to change cars, on account of the difference in the gauge of the lines under the operation of the two countries, there may also be separate stations. The question of the possibility of ultimately establishing a through-train service and the utilization of a similar railway gauge by both the Japanese and Russian lines in one, it is believed, the recently appointed Japanese Manchurian railway commission will consider.

ELECTRIC RAILWAY.—Japan.—The Japanese Government has sanctioned under a 99-year concession the construction of an electric railway between Osaka and Kyoto, stipulating 60-lb. rails outside and 70-lb. within the city limits. The distance is 30 miles, and the authorized capital will be $3,500,000. The Kobe City Electric Railway has been approved by the Government with a capital of $3,000,000. The 18 miles will be built in two installments. It is expected that a charter will soon be granted by the Government for the construction of a 13-mile electric railway between Kobe and Akashi, costing about $1,000,000. Work on the Nankai Electric line between Osaka and Hamadera—four miles—will soon commence, and an extension to Wakayama is being considered, all estimated to cost $1,000,000. The cars for these lines will most likely be made in Nagoya, as were those for the Hanshin line between Kobe and Osaka, by the Nippon Sharyo Seizo Kaisha, from a sample car imported from the United States, while the electric motors and rails will be imported. Besides the above there are a number of other short electric railways in contemplation.

RAILWAY, PORT WORKS.—Argentine.—The Government has been authorized to expend the sum of $3,825,239 gold, on new railway lines in theport of Buenos Ayres.

The bill authorizing Urdanix & Co. to construct a railway from Buenos Ayres to Puerto Belgrano, with branches to La Plata, Las Flores, etc., has been definitely approved.

The Senate has approved the bill granting a concession to Alejandro Madero & Co., for a line from Port San Antonio, in Gulf San Matias, northwards for 70 kilometres, running parallel with the Rio Negro, which will be crossed to the west of Choele-Choel, again northwards, passing through Alvear and Medano Colorado to Mercedes, in Province of San Luis. A branch line will start at kilometre 65 from San Antonio, eastwards till the 5th meridian is crossed and then on to Bahia Blanca.

The Government has approved the contract between the Railway Board and Quesada Hnos., with respect to the construction of an electric railway between the Capital and Lujan.

The Government will shortly ask Congress for permission to spend $16,000,000 on the enlargement of the port of Buenos Ayres. A special committee of merchants has been appointed to report on the necessities of the port, so as to make it as useful as possible.

PROJECTED WORK.—Australia.—A recent Consulate Trade Report contains the following in reference to projects in Australia:

The country is new and needs development. There are as yet only 2,374 miles of railroad in an area of 104,000 square miles, and most of the things necessary for railroad construction and operation will be wanted. The wooden wharves at the main ports, which are quickly destroyed below the water level by insects, will be replaced by concrete reinforced by steel. The Auckland Harbor Board is authorized to spend $10,000,000 for this purpose at the port of Auckland, and the Ferro-Concrete Company, an Australian corporation, is now actively engaged in the work. Other ports have this matter under consideration.

The earthquake and fire at San Francisco have demonstrated the value of steel frames for buildings, and these are sure to be in demand in the future structure of all important buildings in this region where earthquakes may occur at any time. The United States, on account of its great steel manufacturing plants and its geographical position, should have a large share of this trade.

New business should be sought by sending here capable representatives familiar with the goods. Their efforts should be backed up by advertising. The colony has excellent newspapers which have a large circulation and are widely read. They contain at present many advertisements of American goods, which indicate that they are being used with good results. After the trade is obtained it should be carefully looked after.

BUILDING MATERIALS.—Uruguay.—Consul John W. O'Hara has already called attention to the demands of this market for building materials and furnishings and to the general activity in building trades in Uruguay, and desires further, particularly, to call attention to some public buildings and improvements recently projected, concerning which he writes from Montevideo; The Government of this country has recently made arrangements for three new enterprises of importance, for the construction and furnishing of which a large amout of materials will be necessary, namely, the national university, for which $1,000,000 has been appropriated; the legislative palace, with an appropriation of $1,516,000, and the grand avenue and viaduct. The cornerstones of the university and the legislative palace were laid on July 18. The projected grand avenue is to extend from the legislative palace to the site of the new Government building, to be constructed later, a distance of about a mile. Owing to the declination of the surface, there will be three large steel spans crossing the lowest of the intersecting streets at a considerable height. In order to build this avenue and viaduct it is proposed to appropriate for public use so mach of the streets and private property as is necessary for the avenue itself, as well as the property adjoining it for one block on either side. In order to give a better idea of the extent of the proposed university and the materials necessary for its construction, furnishing and equipment I give a short description of it which appeared in a recent issue of the official organ of the Government, "El Dia." [This description will be loaned to those interested in the order of their application to the Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C.] The materials necessary for these improvements will have to be imported with the exception of stone, lime, and brick. Those most needed will be structural steel, lumber, glass, and builders' hardware. In the matter of furnishings it is proposed that those of the latest improved models be accepted, and inasmuch as they are for public buildings to be paid for by the Government the local tariffs should not interefere American furniture is in use here and very popular. The department of public instruction recently purchased some furniture in the United States, which is now in use in the schools of this city, and I am informed is very much pleased with it. Full particulars as to the buildings to be erected may be had from Señor Juan A. Capurro, ministro de formento, Montevideo, and as to the grand avenue, from Señor Juan P. Lamolle, jefe, inspección de caminos, Montevideo.

RAILWAY SUPPLIES.—Siam.—Bids were received Sept. 4, by the Siamese Government for the supply of 67 passenger cars, seven guards and luggage vans and 265 goods and ballast cars for the Royal State Railways, of which E. Kloke is Ch. Engr. at Bangkok. A Reuter telegram from Bangkok, Siam, says that contracts have been awarded to foreign firms in the following amounts for rolling stock on the Siamese State Railways: THE BRUSH ELECTRICAL ENGINEERING CO., cars, of Cleveland, Ohio, $182,328, a German firm, $95,052, and a Belgian firm, $53,434. The attention of American car builders was drawn to this matter, on April 26, in **Engineering News**, when it was also noted that Consul-General Montgomery Schuyler, Jr., in a recent report to the government had stated: "It is to be noted that the sealed tenders will be opened in Bangkok on Sept. 4, 1906, and that therefore the time allowed is very short. It is sincerely to be hoped that American enterprise will try to obtain at least a portion of the present contract, as the principle of open tender is just becomig firmly established in Siam after repeated efforts, and largely through efforts of the Hon. Hamilton King, American Minister here. It would produce an excellent impression in Siamese Government and financial circles to have America interest itself in this matter. On the three occasions in which there has been an open tender in Siam since the principle became established, only once has there been an American tender received, and that one arrived two days too late to be considered. There is no reason why American manufacturers cannot compete in the class of contracts with Siam, and closer commercial relationship will be of advantage to both countries."

DEFICIENT POSTAGE.—Consular officers are subjected to an annoyance which amounts to imposition, involving considerable expense to those officers. This arises from thoughtlessness on the part of business men and others in the United States who address letters to consuls requesting information and send them circulars for distribution in their districts and who fail to fully prepay the prescribed postage. For example, a letter addressed to a foreign country must pay 5 cents for each half ounce or fraction thereof. Failure to prepay the required postage makes the addressee liable for the deficiency, and double the amount of such deficiency as a penalty. A foreign letter, weighing an ounce, with a 2-cent stamp affixed, would be deficient 8 cents, and the party addressed would be obliged to pay the deficiency and 8 cents penalty. Complaints are frequently received from consuls in regard to this matter, and attention has been called to it through the Daily Reports, notwithstanding which the practice continues and seems to be growing with the increasing growth of our foreign trade. Three communications from consuls on this subject are given below, to which attention is invited.

From Montevideo Consul John W. O'Hara writes: Frequent complaints have been made at this consulate by business people of this city that letters and packages are sent from America without sufficient postage. Some of the complainants say that the payment of penalties on underpaid mail is becoming burdensome, amounting in some instances to $6 or $7 per month. It might be considerably more were not a great many pieces refused as being of no apparent value. I am also informed that this underpayment rarely occurs in the case of letters from other foreign countries. On account of the frequency of these complaints, I have thought it proper to call the attention of manufacturers, exporters and inquirers in general to this oversight. The rate postage on a letter of one-half ounce or less from the United States to this country is 5 cents. If deficient, there is charged, in addition to the shortage, an equal amount as penalty, so that when a letter weighing one-half ounce or less is mailed with a 2-cent stamp attached, the addressee must pay double the shortage, that is, 6 cents. If the letter weighs more than one-half ounce, as frequently happens, and bears only a 2-cent stamp, it is necessary to pay 16 cents (charge for 1 ounce) and 10 cents for every additional half ounce. This places an unnecessary burden on people who are making an effort to become acquainted with American goods and methods. Being compelled to pay penalties, even though small, does not tend to promote good feeling on the part of actual or prospective buyers.

From Rheims, Consul J. Martin Miller furnishes a few cases illustrative of his experience: The underpaid postage question on letters sent from the United States to consulates is a somewhat hackneyed one, but this does not seem to cause a diminution of such letters and postal cards as well as second-class mail matter. I received recently a letter containing circulars to which there was affixed a 5-cent stamp. The overdue postage was 1.50 francs (30 cents). The information desired was somewhat technical and would require considerable time and research to obtain. A few weeks later a second letter was received, stating that the firm had been awaiting my reply, and requesting me to make a special effort to secure the desired information. Upon this letter was a 2-cent stamp, so that I was called upon to pay 30 centimes, or 6 cents—3 cents for underpaid postage, and a like amount as a penalty. Occasionally American business firms send circular letters under a 1-cent stamp in an unsealed envelope. It is not too much to ask that firms mailing a large correspondence each day have the foreign letters carefully sorted out by a clerk well informed about foreign postage and held responsible for their proper preparation for the mail. While many American establishments are careful about this, there are many others who are not.

Consul A. Gaulin, of Havre, calls attention to a special envelope marked "Foreign post," by which the leading English houses avoid penalty postage on their foreign correspondence. He writes: Special envelopes bearing the words "Foreign post" printed in large type are used by a number of leading English houses for their foreign correspondence. This serves as a constant reminder to the mailing clerks that the domestic postage rates do not apply to the letters or packages so marked, and errors are thus easily avoided. I would suggest the adoption of a similar system by United States exporters. It might tend to decrease the large amount paid each year by consular officers for penalty postage on letters and catalogues sent them from the United States and on which full postage is not prepaid. It might also help to regain the good will of many foreign firms whose disaffection can be attributed to no greater and no other cause. The evil is evidently due to a lack of proper classification of mail matter in the offices of our merchants, and a simple method, like that above mentioned, would probably prove to be an effective remedy.

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## INDUSTRIAL NOTES.

ARTHUR R. TOWNSEND announces that he has opened an office for general mining engineering practice at 114 Liberty St., New York.

LEWIS F. SHOEMAKER & CO., of Philadelphia, have been awarded a contract by the Pennsylvania R. R. for approximately 2,000 tons of railroad bridge work.

THE LINK-BELT CO. has recently opened an office at 913 Missouri Trust Bldg., St. Louis. Mr. E. C. Berghoeffer, an engineer of long experience, is in charge.

THE J. R. ALSING COMPANY reports the building of one of the largest tube mills ever constructed, for T. B. Floyd, Binghamton, N. Y., and shipped to New Hampshire for the pulverizing of felspar. The mill measures 6 ft. in diameter and 24 ft. long.

THE HARBISON-WALKER REFRACTORIES CO., of Pittsburg, Pa., has taken over the selling organization of the Portsmouth Harbison-Walker Co., and in the future all brands of brick, etc., made by the Portsmouth Harbison-Walker Co. will be sold by the Harbison-Walker Refractories Co. direct from its Pittsburg offices.

THE WILKINSON STEAM TURBINE COMPANY has been organized for the purpose of building steam turbines and allied machinery under the inventions of James Wilkinson, of Birmingham, Ala. The turbines will be manufactured by the Corliss Steam Engine Works, Providence, R. I., where the new company will have offices.

THE KENT MILL CO. reports a great increase in demand for its pulverizers. In cases where the Kent Mill has been in use for many years, and the plants are being enlarged, the owners have ordered additional equipment upon the satisfactory results obtained from the original order. The Chicago Portland Cement Co. has ordered several Kent Mills for its plant at Oglesby, Ill. The new plant at Mason City, Iowa, is to be equipped with Kent Mills.

THE CINCINNATI EQUIPMENT CO., Cincinnati, Ohio, is making extensive addition and improvements to its works. Among some being the building of a new wood-working shop, 40 × 120, to be of reinforced concrete and steel construction throughout, and the complete remodeling of the yards. These improvements were made necessary by the enormous growth of their second-hand contractors and railroad equipment business. This company is one of the largest owners and rebuilders of second-hand steam shovels, locomotives, cars, etc., in this country.

THE RUGGLES-COLES ENGINEERING CO., with offices in New York and Chicago, report the following sale of its DRYING MACHINES during the month of October: Oklahoma Portland Cement Co., Ada, I. T., three; Chicago Portland Cement Co., Oglesby, Ill., one; Iowa Portland Cement Co., Mason City, Iowa, six; Dixie Portland Cement Co., Bridgeport, Tenn., six; Almendares Portland Cement Co., Havana, Cuba, two; Penna. Portland Cement Co., Bath, Pa., three; Empire Gypsum Co., Carbutt, N. Y., one; Continental Graphite Co., Byers, Pa., one; U. S. Graphite Co., Byers, Pa., one.

THE ELECTRIC CABLE COMPANY has received additional orders from the New York Central R. R. Co. for Voltax, the liquid compound, to be used as an insulating and waterproofing material in connection with the third-rail system near High Bridge, New York. This material has done excellent service as an insulating compound, and is becoming extensively used for this purpose. Among the large concerns which are using Voltax for this purpose are Westinghouse-Church-Kerr Co., using it on galvanized cables; the Interborough Rapid Transit Co., using it as a waterproofing material on galvanized sheds and out-houses, and the American Insulating Machinery Co., of Philadelphia, who are using it on the frame work of its insulating machines.

THE BUFFALO FORGE CO. reports the following as a partial list of recent sales: Klots Throwing Co., New York, N. Y., complete heating and humidifying apparatus with automatic control of humidity; Peerless Mfg. Co., Lowell, N. C., complete heating and humidifying apparatus with automatic control of humidity; Lake Shore Eng. Wks., Marquette, Mich., 40-in. steel plate fan direct-connected to engine for forced draft; W. S. Barston Co., New York, 170-in. fan with two water cooled bearings direct-connected to 8 × 10 automatic engine for induced draft; Page Bros. Buggy Co., Marshall, Mich., 50-in. steel plate fan for dry kiln; General Electric Co., five 40-in, two 45-in., one 50-in., and two 55-in. special steel plate fans for cooling transformers; Leland Stanford University, forge shop equipment, including 25 down draft hoods, 60-in. fan and No. 7 "B" volume blower with ring oiling bearings; Emory College, Oxford, Ga., for heating and ventilating gymnasium two 110-in. steel plate fans with self aligning bearings, tight and loose pulleys, and an 8 × 8 single vertical double acting engine with our new design open frame; Central Stamping Co., Newark, N. J., 100-in. fan and 5⅛ × 7 direct-connected engine for heating enamel warehouse; Erie Railroad, heating equipment roundhouse and machine shop at Susquehana. Heating and ventilating apparatus for the following: Geophysical Laboratory, Carnegie Institution of Washington; Keystone Watch Co., Philadelphia, Pa.; J. J. Howden Co., Muskegon, Mich.; Hood Furnace and Supply Co., Corning, N. Y., and electric Wheel Co., Quincy, Ill.

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## TRADE PUBLICATIONS.

DRILLS.—Ingersoll-Rand Co., 11 Broadway, New York, N. Y. Bulletin No. 2011. Paper; 6 × 9 ins.; pp. 19; illustrated.

The construction, operation and advantages of the "Little Jap" hammer drill for compressed air operation are fully discussed in this bulletin. This drill is intended for light rock excavation.

CEMENTS.—Coplay Cement Mfg. Co., Broadway and 25th St., New York City. Paper; 7 × 10 ins.; pp. 64; illustrated.

"Saylor's Portland Cement" is the title of this booklet which gives, by means of numerous illustrations and brief descriptions, examples of walls, houses, pavements, bridges, and steps in which this cement has been used with satisfactory results.

WATER COOLING TOWERS.—De La Vergne Machine Co., foot east 138th St., New York, N. Y. Paper; 6 × 9 ins.; pp. 4; illustrated.

The water cooling towers to which this folder is devoted are claimed to cool water from 5 to 15° below the temperature of the atmosphere, depending on the humidity. These towers are designed for power plants, steam or ammonia condensers, etc.

ELECTRIC HEADLIGHTS.—Rushmore Dynamo Works, Plainfield, N. J. Paper; 9 × 6 ins.; pp. 15; illustrated.

Electric headlights for locomotives are illustrated and described in this publication. In the Rushmore headlight, regular arc light carbons are used; these are placed horizontally and are fed automatically. A special form of lens mirror is used. The arc gives 2,000 c. p., and uses a 9-amp. current at 50 volts.

DRYERS.—United States Drying Engineering Co., 60-70 Beaver St., New York, N. Y. Catalogue No. 3. Paper; 9 × 6 ins.; pp. 16; illustrated.

Different styles of drying machines are shown in this publication, which has just been issued. The kind of work for which each style of dryer is best adapted is stated, and the general construction is briefly described.

AIR BRAKES.—Allis-Chalmers Co., Milwaukee, Wis. Bulletin No. 1508. Paper; 8 × 10½ ins.; pp. 12; illustrated.

"Christensen" straight air brake equipments are treated of in this bulletin. It is claimed that between 10 and 15 per cent. is saved in current consumption by electric railway cars using Christensen brakes in place of hand brakes. The bulletin gives dimensions, capacities and other data relating to the motor-driven compressors used with these brakes.

AIR COMPRESSORS.—Chicago Pneumatic Tool Co., Chicago, Ill. Catalogue No. 20. Paper; 6 × 9¼ ins.; pp. 116; illustrated.

Over 100 sizes and styles of "Franklin" air compressors are illustrated and described. Several new types of compressors, including Corliss, motor driven, gas engine driven, and new pattern compressors of large capacities are presented. Considerable space is devoted to pumping by compressed air, and numerous tables and formulas are introduced in the last part of the publication.

CRANES.—The Case Mfg. Co., Columbus, Ohio. Bulletin No. 22. Paper; 12 × 9 ins.; pp. 30; illustrated.

Electric cranes are here illustrated and described in detail. Both direct and alternating-current motors are used. Although it is admitted that the regulation of the alternating-current crane is not as accurate as that of the direct-current crane, this is somewhat overcome by the use of larger motors and higher maximum speeds than is customary with the direct-current type. The alternating-current motors are of the induction type, and the direct-current motors used have four poles instead of two on account of higher efficiency.

**For other Proposal Advertisements see pages 51, 52, 53, 54, of Advertisements and Construction News page 166.**

## TUNNEL.

The Scranton Gas & Water Co.
115 Wyoming Avenue,
Scranton, Pa.

Proposals will be received until November 30th, for driving a tunnel from Lake Scranton Reservoir to a point near the Township road in the 19th Ward, Scranton.

Size of tunnel to be seven (7) feet high by nine (9) feet wide; and about four thousand (4,000) feet long. One or more shafts may be sunk; will be ten (10) feet by ten (10) feet in the clear, and about one hundred and eighty (180) feet deep.

Bidders are requested to state price per linear yard each, for tunnel and shafts.

Contractor to furnish all tools, labor and machinery.

The Company reserves the right to reject any or all bids.

Plans and specifications may be seen at the offices of the Company.

W. W. SCRANTON,
20-2t President.

## FURNISHING CAST IRON PIPE & SPECIAL CASTINGS.

Office of Sewerage and Water Board,
No. 602 Carondelet Street,
New Orleans, La., Nov. 10th, 1906.

Sealed proposals will be received until 3 o'clock P. M. of Wednesday, January 23d, 1907, for the furnishing of six lots of cast-iron pipe and special castings, aggregating approximately 38,000 tons of pipe and 1,100 tons of special castings. Pipe will be in sizes from 4 to 42 inches.

Bids will be considered upon each lot separately, or upon the first two and last four lots together or upon all lots together.

A certified check on a New Orleans bank for $1,500 must be deposited with the Secretary of the Sewerage and Water Board by each bidder and for each lot bid upon. Said checks shall be deposited not later than 2 P. M., of January 23d, 1907.

A surety company bond for an amount equal to 25 per cent. of the gross amount of any contract awarded will be required of the successful bidder in each case.

Specifications and blank forms of proposals may be obtained at the office of the Board.

The right is reserved to reject any or all bids.

F. S. SHIELDS,
Secretary.

GEO. G. EARL,
20-10t General Superintendent.

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Department of Public Works.
Bureau of Surveys,
Office, 416 City Hall.
Philadelphia, Nov. 12th, 1906.

Sealed proposals, endorsed "Bids for Bridge and Main Sewers," and addressed to the undersigned, at the office above mentioned, will be received until 12 o'clock, noon, on Tuesday, Nov. 27th, 1906, for

Schedule A. Bridge.
Schedule B. Main Sewers.

Plans for the above work will be exhibited in the office of the Bureau of Surveys, Philadelphia.

Specifications and blank forms upon which bids must be made, will be furnished upon application to the Chief Engineer, Room 416 City Hall.

Bidders must be skilled and regularly engaged in the class of work bid for.

No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

JOHN R. HATHAWAY,
20-2t Director.

## HAULING AND LAYING WATER PIPE.

Office of Sewerage and Water Board,
No. 602 Carondelet Street,
New Orleans, La., Nov. 10th, 1906.

Sealed proposals will be received until 3 o'clock P. M., Wednesday, January 23d, 1907, for the hauling and laying of approximately 50 miles of cast-iron water pipe, from 4 to 42 inches in diameter, and aggregating about 13,000 tons.

A certified check on a New Orleans bank for $3,000 must be deposited with the Secretary of the Sewerage and Water Board, by each bidder, not later than [illegible] o'clock P. M., Wednesday, January 23d, [illegible]

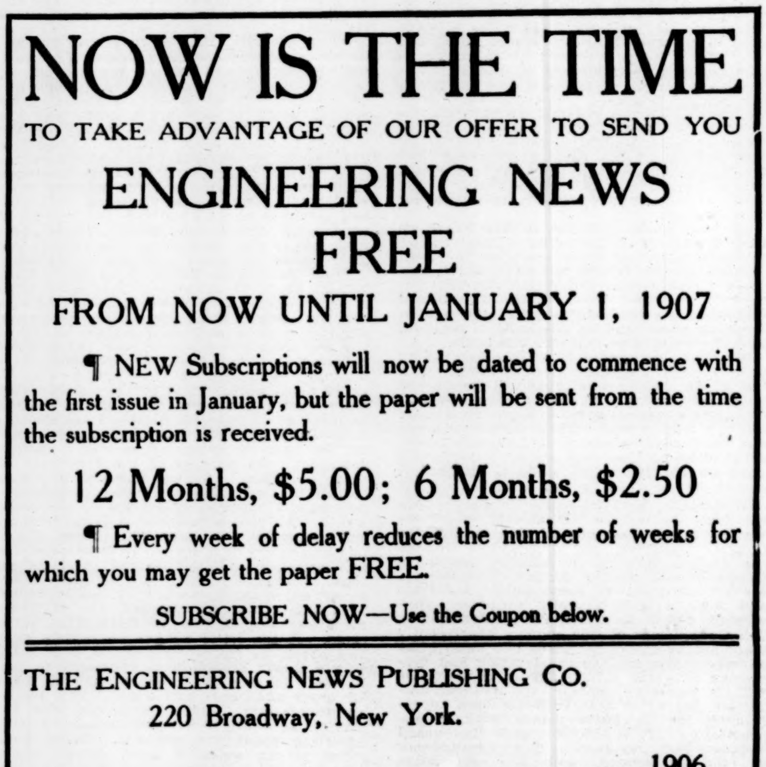
A surety company bond for an amount equal to 25 per cent. of the gross amount of the contract will be required of the successful bidder.

Specifications, general plans and blank forms of proposal may be obtained at the office of the Board.

The right is reserved to reject any or all bids.

F. S. SHIELDS,
Secretary.

GEO. G. EARL,
20-10t General Superintendent.



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## BRIDGE.

Fall River, Mass.

Sealed bids or proposals for furnishing the materials and building a steel bridge about 920 feet long, supported by stone piers and abutments, and the approaches and ways thereto, over Taunton Great River between the city of Fall River and town of Somerset, in the State of Massachusetts, addressed to the Joint Board, for building bridge at Fall River, and endorsed "Proposal for bridge at Fall River," will be received by Frederick N. Wales, Clerk of Joint Board, at Room 131, State House, Boston, Mass, until 12 o'clock, noon, on Monday, December 17, 1906, and then and there will be publicly opened and read.

Proposals may be made for either of the four parts of the work described in paragraphs a, b, c, d, in the specifications, or for the entire work.

All proposals must be made upon blank forms which, together with information in regard to the work, may be obtained at the office of Richard M. Berrian, Engineer, 53 State Street, Room 913, Boston, Mass., where plans, specifications and forms of proposal and contract may be seen.

Each bidder will be required to give to the Joint Board satisfactory assurance of his competency, experience and responsibility.

The right is reserved to reject any and all bids and to waive any defect or informality, at the discretion of the Joint Board.

James F. Jackson, George W. Bishop, Clinton White, Railroad Commissioners; George E. Smith, Henry J. Skeffington, Samuel M. Mansfield, Harbor and Land Commissioners; George T. Durfee, William R. Black, John I. Bryant, County Commissioners of Bristol County.

JAMES F. JACKSON,
Chairman Joint Board.
Room 131, State House, Boston, Nov. 9, 1906.
20-3t

## SITUATIONS OPEN

WANTED.—First-class construction engineer for position of principal assistant engineer of R. R. Co. on Pacific Coast. One with extensive experience in R. R. building, tide water terminals and harbors; designing, etc., preferred. Also a first-class draftsman with general experience in above work. Answer, stating age, experience, reference, salary wanted, specimen of drafting. Address "O. A. 20," Engineering News, New York. 20-2t

WANTED.—Young graduate engineers in M. of W. Dept. of leading railway system. Bridge work, including estimating, field inspection, design. Favorable chances for advancement. $75 to $90 per month. Address "M. A. 20," Engineering News, New York. 20-1t

WANTED.—Thoroughly experienced men to operate "New Era" or "Austin" graders at $3 a day. Also wheeler holders at $2 a day and grading foreman, $3 and up. Permanent work on Long Island. Apply. FOYE-FOX COMPANY, 45 Main Street, Flushing, L. I. 20-1t

WANTED.—Designing draftsmen on grade crossing elimination and general railroad work. $100 to $125 per month. Address "W. B. 20," Engineering News, New York. 20-3t

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(including excavation, furnishing, laying and back-filling) may be readily determined from

KIRCHOFFER'S DIAGRAM

which is based upon data obtained from several hundred bids, wherein depth of trench and size of pipe were specified.

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